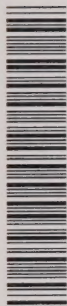


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Ontario

ROYAL COMMISSION OF INQUIRY INTO CERTAIN
DEATHS AT THE HOSPITAL FOR SICK CHILDREN AND
RELATED MATTERS.

Hearing held
8th floor
180 Dundas Street West
Toronto, Ontario

The Honourable Mr. Justice S.G.M. Grange

P.S.A. Lamek, Q.C.

E.A. Cronk

Thomas Millar

Commissioner

Counsel

Associate Counsel

Administrator

Transcript of evidence
for
September 21, 1983

VOLUME 37

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37

Rose (cont'd)

X Labaw
Tobias
Shanahan

Thompson
Counsel
Associate Counsel
Administrator
Couch
Stark
Tobias
Couch

Becker

In Ch. (cont'd)



ROYAL COMMISSION OF INQUIRY INTO CERTAIN
DEATHS AT THE HOSPITAL FOR SICK CHILDREN
AND RELATED MATTERS.

Hearing held on the 8th Floor,
180 Dundas Street West, Toronto,
Ontario, on Wednesday, the 21st
day of September, 1983.

THE HONOURABLE MR. JUSTICE S.G.M. GRANGE - Commissioner
THOMAS MILLAR - Administrator
MURRAY R. ELLIOT - Registrar

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	Children
B. SYMES	Counsel for the Registered
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	and 35 Registered Nurses at
	The Hospital for Sick Children

(Cont'd)



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B. JACKMAN	Counsel for Mrs. M. Christie - R.N.A.
J.A. OLAH	Counsel for Janet Browless - R.N.A.
S. LABOW	Counsel for Mr. & Mrs. Gosselin, Mr. & Mrs. Gionas, Mr. & Mrs. Inwood, Mr. & Mrs. Turner, Mr. & Mrs. Lutes and Mr. & Mrs. Murphy (parents of deceased children)
W.W. TOBIAS	Counsel for Mr. & Mrs. Hines, (parents of deceased child Jordan Hines)
F.J. SHANAHAN	Counsel for Mr. & Mrs. Dominic Lombardo (parents of deceased child Stephanie Lombardo); and Heather Dawson (mother of Amber Dawson)




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A/DM /ak

---Upon commencing at 10:00 a.m.

DR. VERA ROSE, Resumed

THE COMMISSIONER: Yes, Mr. Labow?

MR. BROWN: Excuse me,

Mr. Commissioner.

THE COMMISSIONER: Yes, Mr. Brown?

MR. BROWN: May I speak to you with
respect to the meeting?

THE COMMISSIONER: Yes.

MR. BROWN: May I suggest next
Tuesday at 4:30.

THE COMMISSIONER: Tuesday at 4:30,
all right.

MR. BROWN: Thank you.

THE COMMISSIONER: That is fine,
Tuesday at 4:30, that is the date to discuss the
problems that Mr. Sopinka has about the course of
the hearing.

MR. BROWN: The course of the
hearing, and the concern about Phase 1 and Phase 2,
and also clarification I guess of your ruling last
week on the production of documents. Those I see
as the two main points.

THE COMMISSIONER: Yes, all right,
thank you. Well everybody and particular those who



1
2 are not here take note of the fact we will have this
3 meeting at 4:30 next Tuesday.

4 Yes, Mr. Labow?

5 MR. LABOW: Thank you,
6 Mr. Commissioner.

7 CROSS-EXAMINATION BY MR. LABOW: (Continued)

8 Q. Dr. Rose, I would like to
9 go back to one topic that I have had a little
10 trouble with, and that is the meetings that the
11 doctors had prior to this Commission?

12 A. Yes.

13 Q. Now we have heard from
14 Dr. Fowler, at Volume 34, page 6742, that doctors
15 would take specific charts and do a summary; set
16 out the key data. Now do I take it you agree with
17 that?

18 A. Yes. Well, I should say to
19 begin with the summaries were prepared at the request
20 of counsel.

21 Q. Yes, I understand that.

22 A. And we looked at the 36 charts
23 and decided who was most intimately involved with
24 each of these patients. This particular person,
25 this particular cardiologist would then review the
chart and look at the main problem, describe the



1
2 course of events, to help both counsel and Dr. Rowe
3 who had to review all 36 of these patients and made -
4 it meant an enormous volume of review for him.

5 Q. Now, Dr. Fowler indicated
6 that after these summaries were prepared the six
7 doctors involved, and they were Drs. Rowe, Fowler,
8 Freedom, yourself, Olley and Izukawa.

9 A. Yes.

10 Q. Were each given a Xerox copy.

11 A. Right.

12 Q. And then there were several
13 meetings, and the doctors went through every patient,
14 added and changed things, and reached some kind of
15 consensus as to the key problems with the patients.

16 A. That is not correct. The
17 consensus was about the main problem that the patient
18 had, mainly the diagnosis. We made corrections
19 about the cause of death, I mean not the cause of
20 data death, but the time of death and who was
21 involved at any particular time. Who was the
22 cardiologist on call at the night, who was ward
23 chief, and who was the referring cardiologist and
24 try to remember the fellows who were involved and
25 so on. There was no consensus about anything else
except you know identifying the people that were



1
2 involved.

3 Q. Now, how many meetings did
4 you have, do you recall?

5 A. I only recall one.

6 Q. You can only recall one?

7 A. After we prepared the summaries
8 I only recall one.

9 Q. Now, I asked the doctor a
10 few questions about this, and one of the questions
11 I asked was whether the doctors had included opinions
12 when they drew up the summaries. Did you include
13 opinions in the summary?

14 A. We reviewed Dr. Bain's opinion
15 and put that down. We gave the opinion of the
16 cardiologist who had first seen the child, as to
17 what he thought the child had. Those were the
18 opinions expressed. Then we finally asked the
19 cardiologist who was most intimately involved with
20 the case to express a retrospective opinion knowing
21 what had transpired in the meantime, what he thought
22 now might have happened, and so that was indicated
23 as well.

24 Q. So on the summary you would
25 indicate what the opinion was when the child was
admitted?



1

2

A. Right.

3

Q. Dr. Bain's opinion?

4

A. Right.

5

Q. The opinion of the doctor at

6

the time of death?

7

A. No.

8

Q. No?

9

A. No, the opinion in retrospect

now.

10

Q. Just the opinion now?

11

A. Yes.

12

Q. Looking back on the chart

13

and reviewing it?

14

A. Looking back on the chart.

15

Q. Now, when Dr. Rowe was

16

examined by Mr. Manning he asked some general
questions about digitalis.

17

A. Yes.

18

Q. And just to understand whether

19

you agree with this situation: it was put to

20

Dr. Rowe that all the digitalis preparations had

21

a comparatively low margin of safety. Would you

22

agree with that?

23

A. Yes.

24

Q. And they can all cause

25



1

2

similarly severe toxic reactions?

3

A. That is right.

4

5

6

Q. And because it is fatal, or could be fatal, physicians have to exercise every precaution in prescribing it and dealing with it?

7

A. That is correct.

8

9

Q. And the patients have to be monitored carefully?

10

A. That is correct.

11

12

13

Q. And that clinical appraisal is the most important diagnostic tool in determining whether or not digoxin toxicity actually is there with regard to any patient?

14

15

A. Yes. Clinical appraisal is very important.

16

17

Q. Now what is included in clinical appraisal?

18

19

A. Whether the child is showing any signs of toxicity. Is that what you mean?

20

21

22

23

24

25

Q. Yes.

A. Whether the child is vomiting, or having some lethargy or what we call anorexia, not wanting to feed. Whether there is an irregularity of the pulse, slowing of the pulse, or speeding up of the pulse. Anything that is different from the



1
2 normal regular pulse.

3 Q. Those are the key things that
4 you would look for?

5 A. Yes. Also in order to see
6 if the child had an adequate response to digitalis,
7 you look, and I mentioned yesterday, you look at
8 the size of the liver to see if it is reducing in
9 size, the child is becoming very congestive. The
10 heart rate has come down, because one of the
11 digitalis effects is to slow the heart in the child
12 in heart failure and we do want some slowing of the
13 heart rate. An improvement in the congestion that
occurs when the child is in heart failure.

14 THE COMMISSIONER: Can you deter-
15 mine the size of the liver from the outside or do
16 you have to some machine?

17 THE WITNESS: No, we just use our
18 hands. It is very, very easy and most useful.

19 THE COMMISSIONER: It may be
20 very easy for you.

21 THE WITNESS: Anybody could learn.

22 MR. LABOW: Q. Now in clinical
23 appraisal would you also include looking at levels,
24 digoxin levels taken on assay?

25 A. Yes, that is the last thing



1
2 really. I think we would look at the electrocardio-
3 gram, and we look at the digitalis effects, sometimes
4 there is a slowing of the P2R interval, that is
5 the prolonged conduction time, that is one of the
6 digitalis effects. Another digitalis effect is the
7 change in the ST segment, that is an effect of
8 digitalis, but it may also give you an idea whether
9 there may be some significant change, or toxicity,
10 you would get irregularities, and you may get heart
11 block with ventricular escape rhythms, you may get
12 tachy arrhythmia or brady arrhythmia. There are
13 really numerous rhythm disturbances described for
digoxin toxicity.

14 Q. Now a hypothetical situation
15 was put forward whereby, if you had a patient with
16 a heart problem who was being given digoxin and
17 diuretics, and you saw vomiting, giddiness, or
18 increased secretion of urine, or frequent motions
to part with urine, what would be the first diagnosis?

19 A. I am sorry, what was the
20 last thing?

21 Q. Frequent motions to part with
22 urine?

23 A. Frequent motions?

24 Q. To part with urine.
25



1

2

3

4

A. To part with urine, I don't know what you mean by that, sir. Who put that hypothetical?

5

6

Q. Mr. Manning put that to Dr. Rowe.

7

A. Yes.

8

9

Q. And asked him, what the first diagnosis of that clinician on the floor would be.

10

11

A. If the child started vomiting? What about the age of the child?

12

Q. It would be an infant.

13

14

A. If an infant started vomiting? There are numerous possibilities and not necessarily digoxin toxicity.

15

16

17

Q. Well, the question was what was your first diagnosis, what would you look for first?

18

19

20

21

22

A. The child vomiting, there could be a number of reasons, it could be related to the feeding; could be gastroenteritis. I think differential diagnosis of vomiting is several pages, you know, long.

23

24

25

If the child was on an adequate dose of digoxin I would check the dose if the child was



1
2 on digoxin and we would want to know what the dose
3 was that was appropriate, if it was appropriate we
4 wouldn't suspect the child's vomiting as relating to
5 it.

6 Q. And if the child continued
7 to vomit and possibly suffered arrhythmias?

8 A. Then we would certainly check
9 the digoxin levels.

10 Q. So you would check?

11 A. Yes.

12 Q. Now if that child --

13 A. Yes.

14 Q. -- after those symptoms had
15 been exhibited, would you look into that as a
16 possible cause of death?

17 THE COMMISSIONER: Look into
18 digoxin?

19 MR. LABOW: Q. Digoxin intoxication.

20 A. If the child had just vomited,
21 you haven't described to me ---

22 Q. If the child had over the
23 course of a day vomited and suffered arrhythmias?

24 A. Yes.

25 Q. If you hadn't done a
digoxin assay during the day and the child died?



1

2

3

A. I think this would be a possibility, yes.

4

5

Q. Is it something you think should be checked into?

6

A. We usually do check this.

7

8

THE COMMISSIONER: I thought though, Dr. Rose, is it not your practice, is it not the practice of the Hospital to take postmortem assays?

9

10

THE WITNESS: Oh no, I wasn't thinking of post mortem.

11

12

THE COMMISSIONER: This is hypothetical, the problem was put to you as if the child died.

13

14

THE WITNESS: Oh, I see, you were asking for post mortem?

15

THE COMMISSIONER: Yes.

16

17

THE WITNESS: No, that wasn't the practice at all, because we are not sure what the postmortem levels mean.

18

MR. LABOW: Q. This is in 1980-1981.

19

A. 1980-81.

20

21

Q. If you had a child in the Hospital suffering those symptoms.

22

A. Yes.

23

Q. And the child died.

24

A. Yes.

25



1

2

3

Q. Would you look into digoxin toxicity as a possible cause of death?

4

5

A. We did not do digoxin levels post mortem to my knowledge on a routine basis, no.

6

7

Q. Would you consider it?

8

9

A. I think we had insufficient knowledge about what they meant in view of the tissue contribution of digoxin and I don't want to go into this.

10

11

Q. My question is if that situation arose?

12

A. Yes.

13

14

Q. Would you and the other doctors consider that as a possible cause of death, when you discussed the death ---

15

16

17

18

19

20

A. Excuse me, it depends what the underlying cardiac problem is. If the child has a severe lethal cardiac defect we would not consider it. I might consider it in a child who has a myocardiopathy like Baby Warner, for instance who might have been unduly sensitive to digoxin.

21

22

Q. So if the child had a severe cardiac defect.

23

A. Yes.

24

25

Q. Notwithstanding the fact that



1

2

you may not have expected the child to die at that
time.

3

4

A. Yes.

5

6

Q. You would not have looked into
digoxin intoxication as a possible cause of death?

7

8

9

10

11

12

A. No, if the child was given
appropriate doses of digoxin for age, and the child
had had normal renal function and all the other
things Dr. Rowe explained to you. So I did mention
those to you when I spoke to you before but I think
you have to assess the electrolyte status and the
renal function as well.

13

14

15

16

Q. Now, is it your understanding
that a very low concentration of digoxin, a very
low reading would preclude the possibility of toxic
reaction?

17

18

19

20

21

A. I think so, yes.

Q. Could you give me a general

idea of what level would not concern you, up to what
level? If you had a child exhibit a level of 6?

A. I would be concerned about a
leve of 6, yes.

22

23

24

25

Q. What level would you not be
concerned at?

A. Well, under 2, and between 2



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and 3 I would still consider is a gray zone and there would be some children who would exhibit no signs of dig. toxicity between 2 and 3, some even greater than 3.

6

7

Q. Well, between 2 and 3 you wouldn't be concerned?

8

9

10

11

A. No. In some children even about 3 and we often see, we have children who are on digoxin at levels about 3 who exhibit no signs of digoxin toxicity, so they seem to tolerate it, it is an individual thing.

12

13

Q. So it would depend on the patient and the reaction?

14

A. Right.

15

16

Q. How would you have to determine that, would you determine it over a course of weeks, could you ---

17

18

19

A. No, I would repeat the level right away and make sure it was correct. Unfortunately they are sometimes incorrect.

20

21

Q. Well, if the level was in an area that didn't concern you, 2.5?

22

A. Yes.

23

Q. For example.

24

25

THE COMMISSIONER: I am not sure 2.5



1
2 is - I thought Dr. Rose said it was the gray zone,
3 perhaps you will have to go to 1.5.

4 MR. LABOW: Q. If the level is
5 in the gray zone.

6 A. Yes.

7 Q. At 2.5.

8 A. Yes.

9 Q. And the child is exhibiting
10 some symptoms that could be associated with digoxin
11 toxicity.

12 A. I would hold the dose.

13 Q. Excuse me?

14 A. I would hold the dose, I
15 would not give another dose.

16 Q. You would hold the dose to
17 see what the reaction would be?

18 A. Yes, hold the dose and repeat
19 the levels.

20 Q. Hold the dose and repeat the
21 level.

22 A. Repeat the electrolyte and
23 the renal function.

24 Q. And if the child continued
25 to exhibit those symptoms?

A. Well, there must be another



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reason for it.

Q. And if the child didn't exhibit those symptoms?

A. I would keep watching the child.

Q. Would you reinstitute digoxin at a lower level?

THE COMMISSIONER: A lower dose.

MR. LABOW: Q. A lower dose?

A. A lower dose might be at the time, yes.

Q. I would like to turn to Barbara Gionas, which is Exhibit 105, the chart is Exhibit 105. Now it is my understanding from a review of this chart, and this is specifically page 77 of the chart and the exhibit that sets out the cardiologist's schedule. That schedule seems to indicate that you were on call the weekend of the 6th, 7th and 8th of March.

A. That is correct.

Q. And at page 77 it indicates that at the very bottom of the page, Barbara Gionas was pronounced dead early in the morning of March the 9th and the parents were notified by Dr. V. Rose, which I assume is you.

A. Yes.



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Q. Did you notify the parents in this case?

A. Yes. I think I phoned, I do recall I actually came in and notified the parents.

Q. So you were on call for this child?

A. Yes.

Q. Now I asked you yesterday as an on-call doctor if an impression of digoxin toxicity would be one of the things you would be called for, and you indicated, probably.

A. Yes.

Q. Now in this case, at page 73, on the 7th of March the doctor who wrote the note that is there, who I think is Dr. Kobayashi.

A. Yes.

THE COMMISSIONER: I'm sorry, what page is this?

MR. LABOW: Page 73.

Q. It indicates that the last digoxin level on the 3rd, or the 2nd of March rather was 1.9.

A. That is correct.

Q. The plan was to hold the next dose?



1

2

A. Right.

3

4

Q. And the first of his three
impressions was, digoxin toxicity.

5

A. Yes.

6

7

Q. Do you recall him calling you,
or anyone calling you that weekend about this
child?

8

9

10

11

A. I recall I was called but
I don't recall, I think he would have informed me,
or would have informed the cardiology fellow, he
might have mentioned it to me but I don't recall.

12

13

Q. So you don't recall being
called, but you probably would be?

14

15

A. Yes, I think I would have been
I am sure.

16

Q. Now digoxin was held?

17

A. Right.

18

19

Q. At that time, and page 75 and
76 of the progress notes and they seem to indicate
there was some improvement?

20

A. Right.

21

22

23

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25



BmB.jc

B

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Q. The child was comfortable, the respirations were somewhat better, became less tachycardic. That's at the top of page 75, less tachycardic. At page 76, the note indicates that Barbara had a very comfortable night, respirations were much more regular and easy, did not appear to be in any respiratory failure, apex was regular all evening.

A. I have some disagreement here. On page 75 it says respirations 67 to 91. I think that is very fast. Periods of tachypnea, and we have heard this term before.

Q. Yes.

A. It means fast and shallow respirations. So, this child was in heart failure and remained in heart failure, had a low dig. level by the way when it was repeated, it was 1.2 and that appears at the back of the chart somewhere.

Q. Right. Notwithstanding that, the next day, or later that day, rather, the note at page 76 indicates that the respirations were much more regular?

A. Yes.

Q. The note at page 75 would appear to me to be just after the digoxin was held?



B.2

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2

A. Yes, I suppose so, I'm not sure.

3

There are some times indicated. Mr. Labow, there is continuous reading of respiratory rates carried out by the nurses on a routine basis.

4

5

Q. Right.

6

7

A. It can be very variable if the

8

child is asleep or up or what the child is doing. I think a child who is in heart failure can have a

9

fast respiration or slow respiration. At the time

10

when it slows down everybody thinks, oh, the child is

11

better, but really, if you look at everything you

12

will find the child isn't really out of trouble.

13

Q. Well, in this case the child

14

seemed to have been doing better?

15

A. Yes.

16

Q. And then died early in the morning on March 9th?

17

A. Yes.

18

Q. Now, this is a situation where

19

one of the doctors suspected possible digoxin toxicity?

20

A. Yes.

21

Q. That weekend?

22

A. Yes.

23

Q. The child died very early Monday morning. Do you know if digoxin intoxication was

24

25



B.3

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considered as a cause of death by the doctors in this matter?

3

4

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A. No, I think the digoxin toxicity, he mentioned the child had atrial flutter but I think the electrocardiograms were reviewed and we agreed that the child was not in atrial flutter. The PR interval was prolonged and this is what I told you was a digoxin effect rather than a toxic effect. So that even though this young resident felt he had to consider digoxin toxicity, the digoxin level we took turned out to be low and well within the therapeutic range.

13

14

15

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However, I would like to point out to you that this baby had severe heart failure. There was some sepsis, there was some respiratory illness, instability of temperature. I'm going now over these variables that we noted on this case. There was some electrolyte imbalance and other factors and anemia. So, there were multiple reasons as to why this child would have arrested at that time, so, we did not suspect digoxin toxicity.

(2)

21

22

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24

25

Q. So, because there were multiple reasons to you that precluded the possibility of digoxin intoxication.

A. That's correct.



B.4

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Q. How many reasons do you need to preclude the possibility of digoxin intoxication?

4

5

A. I don't think you can count the reasons.

6

7

THE COMMISSIONER: One good one I would think is enough; two fair ones and three poor ones perhaps would work out, would it?

8

9

10

11

12

13

THE WITNESS: I don't think in a sick baby you can look at one factor in isolation. We always consider digoxin because we know it is a dangerous drug but we also have to take the child and its defect and all the other problems the child is faced with.

14

15

MR. LABOW: Q. Could you turn to page 379 of the Hospital record?

16

17

18

A. Yes.

19

20

21

22

23

24

25

Q. Now, from 379 to 383, there is a note at the bottom by a doctor, and I can't read his name?

A. Contreras.

Q. Excuse me?

A. Contreras.

Q. Contreras?

A. Yes.

Q. And it indicates: "ST changes question digoxin"?



B.5

1

2

A. Yes.

3

Q. On each page?

4

A. Yes. That's the same record, yes.

5

Q. Could you explain to me what that means?

6

7

8

9

10

11

A. That means digitalis effect most likely. In view of the fact that this child did not have digoxin toxicity based on the level, two levels, one on the second and one on the seventh when digoxin had been held. So, I think this is just an effect of digitalis.

12

Q. So, it is an effect of digoxin but not toxicity?

13

14

A. Correct.

15

16

Q. Now, you have explained to me that the most important thing, the most important diagnostic tool, is the clinical appraisal?

17

A. One of the most important.

18

Q. One of the most important?

19

A. Yes.

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21

Q. Then why did the doctors preclude the possibility of digoxin intoxication when they receive a level?

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23

A. Well, we now have the level as well, it is an additional confirmation.

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B.6

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Q. It is an additional element?

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A. Right, element, yes. But I have been in this field for many years and before we had digoxin levels we managed these children very well based on the clinical signs, the electrocardiogram and knowing what the proper dose was. Now that we have digoxin levels, although we teach our fellows to use them, I think most of these young men and young women go out to areas where they cannot have a digoxin level and we find it very important to teach them how to have the clinical appraisal at their fingertips.

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Q. Well, my question is, if you have a child that exhibits some of the common symptoms of digoxin intoxication --

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A. Right.

Q. -- it appears to me that if a low level is returned you don't consider digoxin toxicity as the problem?

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A. If a child has symptoms that are often associated with digoxin toxicity we would hold the digoxin. That's the teaching we give our fellows. We also now take a digoxin level to use that as an additional piece of informations

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Q. I understand that, but what I



B.7

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previously asked you was whether low concentrations
preclude the possibility of toxicity?

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A. That's correct.

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Q. And you said certain concentrations
do?

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A. Yes.

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Q. And you have indicated that if it
is under 2, that's it, you don't even consider digoxin
as the cause?

10

A. Correct.

11

12

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Q. Do you have any literature that
you could refer me to that indicates that that's the
situation, or is this a clinical evaluation?

14

15

A. No, there's quite a bit of
literature. I can't give you anything offhand but I
would be happy to give you some later.

16

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Q. I would appreciate an indication
at some later date if that is possible.

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THE COMMISSIONER: Well now, remember
again, Dr. Rose is not a pharmacologist. If we are
going to question an expert - I am sorry, Dr. Rose,
you may be an expert on digoxin ---

22

23

THE WITNESS: No, I'm not, I'm just a
clinician.

24

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THE COMMISSIONER: We are going to have



B.8

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a horde of pharmacologists descend upon us. Can you
not save that question for them?

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MR. LABOW: Well, they are the ones
that I intend to ask the questions of in depth.

5

6

THE COMMISSIONER: Yes, well ---

7

MR. LABOW: My question here is, what
did the doctors rely upon?

8

THE COMMISSIONER: It doesn't matter.

9

MR. LABOW: Well I think it matters.

10

11

THE COMMISSIONER: Well, it may matter
to you but it doesn't matter to me.

12

MR. LABOW: Well, I think it should
matter to you.

13

14

THE COMMISSIONER: Well, you tell me
why it should matter to me.

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MR. LABOW: Well, if the doctors are,
for example, relying on literature that is conceivably
out of date.

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THE COMMISSIONER: But I am investigating
the cause of death of these children, I am not
investigating whether the doctors are relying upon
literature that is out of debt - that's a Freudian
slip - out of fashion or out of date. I'm not
concerned with that. I don't understand why I should
be concerned with it. The investigation of the



B.9

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Hospital procedures was carried on by the Dubin Report and I don't want to go over that again. What I want to find out is what caused the death of these children.

6

MR. LABOW: And that's what I'm trying to help you find out.

7

8

THE COMMISSIONER: --- just in front of your desk somewhere what caused their death and that's what you want to help me on?

9

10

MR. LABOW: Well, that, Mr. Commissioner, is what I am directing my questions to.

11

12

THE COMMISSIONER: All right.

13

14

MR. LABOW: If the doctors or the doctors at the Hospital or the heads of the Hospital were employing information that they shouldn't have been using in their clinical evaluation of the children ---

15

16

17

THE COMMISSIONER: What you are trying to tell me then is that the children died from neglect, is this what you are saying?

18

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MR. LABOW: Quite conceivably.

21

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THE COMMISSIONER: Well, it is about as farfetched a theory as I could think of. However, if you want to ---

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MR. LABOW: It's not a theory,



B.10

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Mr. Commissioner, I am just trying to enter into all the possibilities with regard to the six children that we are looking into specifically.

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THE COMMISSIONER: Yes, all right. Well, I keep trying to tell people I have a simple mind. These children either died - you can certainly try to persuade me otherwise - they either died from massive overdoses of digoxin or they died from their symptoms. The fact that some people may seem to be suggesting they died from a lack of nurses, a lack of doctors, a lack of doctors' knowledge, a lack of care of some sort, strikes me -- I am not a partisan of the Hospital but it has a very good reputation. You have got a long way to go if you want to tell me that that is why they died.

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MR. LABOW: Well, I am not trying to tell you that's why they died, I am trying to find out for myself.

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THE COMMISSIONER: Well, that's all that this evidence can lead to. However, all I'm trying to do is tell you what my concern is and that's why I am not really interested in what Dr. Rose said. I'm sure she has more knowledge than I have but she hasn't as much knowledge as the pharmacologist on what or what does not produce digoxin toxicity - what



B.11

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does or does not - what can or cannot be read into
a digoxin level. Now, there you are.

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MR. LABOW: That's right.

5

THE COMMISSIONER: I would rather wait
for the pharmacologists.

6

7

MR. LABOW: I only want to put one more
thing to you, Doctor.

8

THE COMMISSIONER: Yes, all right.

9

10

MR. LABOW: Q. At page 4354, Dr. Rowe
was questioned, the Commissioner asked him ---

11

A. On this case?

12

Q. No, I'm sorry, this is in the
transcript.

13

14

A. Oh, I'm sorry.

15

Q. The Commissioner asked Dr. Rowe
during Mr. Manning's cross-examination:

16

17

"So you may have, what you are saying
is there may be digoxin toxicity

18

notwithstanding the fact that there is

19

a low level in the blood, is that right?

20

"DR. ROWE: That has been established.

21

I think myself that it is uncommon."

22

A. Yes, I would agree with that.

23

MR. LABOW: I have no further questions.

24

THE COMMISSIONER: Yes, all right,
thank you. Mr. Tobias?

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B.12

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CROSS-EXAMINATION BY MR. TOBIAS:

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Q. Dr. Rose, I believe in giving evidence in response to Miss Cronk's questions yesterday, you indicated that immediately after the death of Jordan Hines but before you had seen the gross heart, before you could watch the autopsy, your immediate suspected cause of death at that time was some viral infection involving the heart muscle?

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A. Right.

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A. Yes.

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Q. All right. And is it also fair to say that it was only much, much later after you had received information regarding the microscopic findings that you were content that there was no infection affecting the heart muscle?

A. That's correct.

Q. All right. So that in the period immediately following death and certainly in the time frame immediately after that, I am referring



B.13

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to March of '81, you were convinced at that time, or I shouldn't say convinced, I think that is summarizing it unfairly, you suspected very, very strongly the infection theory?

6

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A. Yes. I hadn't ruled out, it hadn't been ruled out based on - because I hadn't received any information to the contrary, I was still suspecting that it might --

9

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Q All right, fine. Now, at that time, and I believe you told Miss Cronk yesterday that your conclusion was largely a result of the history of the child and the physical findings. When you say physical findings, were you referring to the clinical observations or were you referring to the findings on the gross autopsy?

15

16

A. I was referring to the clinical observations.

17

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19

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21

22

Q All right. So that you felt that everything in the child's course in The Hospital for Sick Children, the information that you had regarding his clinical condition at the Hospital, at North York General Hospital and what you had been told by the parents regarding his condition at home was consistent at that time with a viral infection?

23

24

25

A. Well, there were other possibilities



B.14

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suggested by the history and I knew that those were
related to the arrhythmia.

3

4

Q. Yes, I was going to ask you
about that.

5

6

A. That was suggested.

7

8

Q. I was going to ask you about that.
I believe you told us yesterday that in fact the
referring physician had raised the possibility of
sick sinus syndrome?

9

10

A. Yes, that's correct.

11

12

Q. All right. But in your mind the
possibility of viral infection was a better
explanation because there was a stronger suspicion
at that time?

13

14

A. Yes, at that time.

15

16

Q. And also you must have known
that there had been some discussion regarding a heart
tumour?

17

18

A. That's correct, yes.

19

20

Q. But again, you felt that at that
time the better explanation and the much stronger
suspicion was the viral infection?

21

22

A. Yes, because the echocardiogram
had not shown a tumour.

23

24

Q. Okay, fine.

25



B.15

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A. It was a note on the chart. All
I had was the chart.

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Q. Now, again, prior to the
microscopic study being done, in fact, prior to the
gross study being done, I'm talking now immediately
after death when you first directed your mind to what
had been the cause of death, did you direct your
mind at that time, at that very early stage, to the
possibility of a problem with the conduction system?
Was this one of the things that you considered?

11

12

13

A. Yes, I was considering sort of
a sick sinus problem as one of the possibilities based
on the history of the child.

14

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Q. All right. And am I correct that
the sick sinus problem would be a form of conducting
difficulty?



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EMT/cr

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A. No, it isn't really. It means there is a dysfunction, abnormal function of the sinus node, the sinus node being the pacemaker of the heart. And unfortunately there isn't too much information in young children on this problem available because we cannot study the very young child. There is more information on the older children. But it was something to be considered as a possibility in this case.

Q. Okay. Now let me understand - let me ask the question that arises logically from that answer: We therefore can have as two distinct possibilities sick sinus syndrome ---

A. Yes.

Q. Or conduction problems.

A. Yes.

Q. In other words you can have conduction problems without having sick sinus syndrome?

A. No.

Q. You can have conduction problems of another type, can you not?

A. No, if you think of sick sinus syndrome you automatically get irregular rhythms and a type of irregularities that this baby



1
2 exhibited.

3 Q. Right. What I am saying is
4 did it not satisfy you - would it not be possible
5 to satisfy yourself that it was not sick sinus
6 syndrome without being satisfied that there was not
7 some other conducting problem?

8 A. I wasn't thinking of that
9 in this baby in the absence of infection or just an
10 isolated conduction problem.

11 Q. Yes.

12 A. I think that would have been
13 unlikely.

14 Q. Okay.

15 A. No, that I did not consider.

16 Q. That you did not consider?

17 A. No.

18 Q. So if I understand your
19 evidence correctly then you did consider the viral
20 infection affecting the heart muscle?

21 A. Yes.

22 Q. The sick sinus syndrome which
23 had been raised by the referring physician?

24 A. Right.

25 Q. And the heart tumor?

A. Right.



1 Q. And you felt on the basis of
2 your knowledge at that time ---

3 A. Yes.

4 Q. - which was granted without
5 the benefit of having seen the gross autopsy findings?

6 A. Yes.

7 Q. You thought that of those
8 three possibilities the one that was most consistent
9 with his history and clinical condition was the
10 viral infection?

11 A. That is right.

12 Q. Now the one thing that you
13 didn't consider at that time I take it is Sudden
14 Infant Death Syndrome. That didn't enter your mind
15 at all?

16 A. At that time.

17 Q. So at that time, judging from
18 the markers that you then had ---

19 A. Yes.

20 Q. - before the gross autopsy
21 findings, you had no reason whatsoever to suspect
22 Sudden Infant Death Syndrome, that question wasn't
23 even entertained in your mind?

24 A. I don't know that I had no
25 reason. I did not suspect it.

Q. Well, let's put it this way.



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Doctor, it did not occur to you ---

3

A. No.

4

Q. - to question it?

5

A. No at 6 o'clock in the morning

6

I think it was, it did not occur to me.

7

Q. I am sorry.

8

A. It was 5 or 6 in the morning

9

and I did not think of it. There was enough there
to possibly explain the child's demise but sick

10

sinus syndrome did not present itself.

11

Q. Right. And when did you ---

12

MR. ORTVED: Sick sinus or SIDS?

13

THE WITNESS: I am sorry, SIDS.

14

MR. TOBIAS: Q. I am referring to

SIDS.

15

A. Yes.

16

Q. And when did you have your

17

meeting with Dr. Fowler and the other members of the
cardiology staff? When did you have your conference

18

to discuss ---

19

A. On the Monday morning after.

20

Q. And at that time was there
any discussion about Sudden Infant Death Syndrome.

21

22

A. Not about Sudden Infant Death,

23

no.

24

25



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Q. And I take it that that meeting
wasn't held at 6 o'clock in the morning?

4

5

A. No, that was held at 8:30
in the morning.

6

7

Q. At 8:30 in the morning?
All right. Is that the same morning that he died?

8

9

A. I am not sure if he died on
Sunday night. I believe so, yes.

10

11

Q. I believe he died on March
8th which was the early morning hours of the Sunday.

12

13

A. On the Sunday. Well, the
meeting was on Monday.

14

15

Q. So it was on the following day?

16

17

A. Yes.

Q. Presumably after you had had
some time off and some rest?

18

19

A. Yes that would seem so.

20

21

Q. And there was no problem in
you participating in that meeting ---

22

23

A. No. None at all.

24

25

Q. - you were physically well,
weren't you?

A. We always review all of the
problems from the weekend.

Q. No, but you didn't have any



1
2 physical problems? You were rational; you could
3 think. You weren't falling asleep. You weren't
4 fatigued, were you?

5 A. No, I was not.

6 Q. And you had a discussion at
7 that time and none of the cardiologists directed
8 their minds at that meeting to the possibility of
9 Sudden Infant Death Syndrome; is that correct?

10 A. That is correct.

11 Q. All right. So that at that
12 time, and I will get later in my cross-examination to
13 how the views of all the cardiologists subsequently
14 changed, but at that time the child's clinical
15 history appeared to be most consistent with viral
16 infection, and that is what you believed it was?

17 A. Yes, that is what I told the
18 group.

19 Q. Okay. Now you also indicated
20 to Miss Cronk yesterday that it was your normal
21 practice in any case, particularly where you had
22 some special concern, to attend the autopsy. Is
23 that a fair statement?

24 A. Where I had a special interest
25 I attended the autopsy.

Q. All right. Is this something



1
2 that you do often?

3 A. Yes.

4 Q. Obviously you attended the
5 initial autopsy on Jordan Hines?

6 A. Yes.

7 Q. So I would take it you either
8 had some concerns or some special interest?

9 A. Right.

10 Q. Okay. Was it concern or was
11 it special interest that made you attend? What word
12 would you adopt?

13 A. Well, in view of my concern
14 about viral infection affecting the heart muscle I
15 wanted to see that heart and how - what the appearance
16 was of the heart.

17 Q. All right. Is viral infection
18 affecting the heart muscle a rare occurrence?

19 A. No, it is very common.

20 Q. You see it all the time?

21 A. We see it very often, yes.
22 Especially with rhythm disturbance, yes.

23 Q. Do you see it in infants often?

24 A. Yes.

25 Q. So it is not something that you
rarely encounter?



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2

A. No.

3

Q. Am I correct in understanding

4

that you have just told me, however, that notwith-

5

standing that that was your special concern?

6

A. Yes.

7

Q. In this particular case?

And that was your only special concern?

8

A. At that time it was.

9

Q. Okay. Did you have any

10

concern at that time, Dr. Rose, and let me ask you

11

this question first: how much actual contact had you

12

had with Jordan Hines before his cardiac arrest?

13

A. I had seen him briefly on a

14

ward round on the Saturday morning, and I had been

15

told what his problems had been, what the monitors
were doing.

16

Q. Right.

17

A. And what the findings were;

18

namely that he had some pneumonitis noted on the
chest X-ray.

19

Q. Right. And at that time ---

20

A. I think he had been having

21

little spells of rhythm disturbance but nothing very
critical.

22

23

Q. Okay. And is that highly

24

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unusual?

3

A. No, it is not at all. I think

4

this child was unstable.

5

Q. Okay. Let's deal with that

6

question. Is it highly unusual for a child under
one month of age who may be having other medical

7

problems such as respiratory problems, possibly

8

pneumonia, possibly a serious virus of some kind,

9

is it highly unusual ---

10

A. It is not highly unusual.

11

Q. - for children of that age

12

to show minor rhythm irregularities?

13

A. It is not highly unusual.

14

Q. Okay. And I take it that

15

that is something you see often, children who exhibit
minor rhythm disturbances?

16

A. Often I wouldn't use, but we

17

do see it, yes.

18

Q. You can see it; you wouldn't

19

use the word "often"?

20

A. No.

21

Q. In the cases where you do

22

see it do you find that in many of those cases the
child is discharged, goes home, leads a normal and

23

healthy life?

24

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A. That happens, yes.

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Q. And obviously in that case you wouldn't follow up what was causing the rhythm disturbance? You wouldn't be too concerned with it once the child was home and well and stable?

A. We would follow the child and repeat the electrocardiogram at intervals just to make sure that there wasn't anything else.

Q. All right. That sounds fair enough. But other than that as long as you are satisfied that he had stabilized, and the rhythm was now normal, you wouldn't be overly concerned?

A. Yes ---

Q. Okay.

A. - if it was just rhythm. I think this child had apnea too so we were concerned about that.

Q. Yes. I understand that.

Now on the Saturday when you had seen him you were aware of the initial clinical diagnosis of suspected pneumonia?

A. Right.

Q. Were you aware of what medication the child was receiving?

A. Yes.



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Q. All right. That was gentamicin
and ampicillin?

A. Correct.

Q. Nothing unusual about those
drugs? They are very common ---

A. Very common.

Q. - I understand they are
prescribed all the time for children?

A. That is right.

Q. And they are administered at
home as well as in the hospital setting. Is that
also correct?

A. Yes.

Q. And at the time that you
initially saw him and talked about him, were you
overly concerned with Jordan Hines?

A. No.

Q. Did you expect that he might
be a terminal case?

A. Not at that time, no.

Q. All right. And then the next
time you were involved I understand was when you
were called at home?

A. Yes.

Q. And you were told that he had



1
2 gone into cardiac arrest?

3 A. Yes.

4 Q. And were you somewhat surprised
5 to hear that that particular child had gone into
6 cardiac arrest?

7 A. Not entirely. There was a
8 history of rhythm disturbance, but you always hope
9 that the child wouldn't develop a cardiac arrest,
10 but that it happened and I was asking the resident
11 what type of rhythm disturbance he had.

12 Q. Right. Now the words you
13 chose to use were "not entirely". You were not
14 entirely surprised.

15 A. No.

16 Q. You were somewhat surprised?

17 A. I am always surprised when
18 I get called about a death or suspected ---

19 Q. All right. Let's not talk
20 about "always". Let's talk about specific, however,
21 in the case of Jordan Hines?

22 A. Yes.

23 Q. You have a child you weren't
24 particularly concerned with at all.

25 A. Yes.

Q. On Saturday afternoon.



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2

A. Yes.

3

Q. Some 12 hours or less than 12

4

hours before you are called and told that the child
is in cardiac arrest?

5

A. Yes.

6

Q. And suddenly you are told he

7

is in cardiac arrest; you come down to the hospital
while cardiopulmonary resuscitation is still on-

8

9

going.

10

Was this a long cardiopulmonary

11

resuscitation effort?

12

A. It was a very long one. I

13

wasn't really told that he had a cardiac arrest on
the phone. I was told that he had a serious rhythm
disturbance and what was my advice, my suggestion.

14

15

In fact I was asked about the pacemaker and I was

16

asked about what medication I would suggest. I

17

suggested lidocaine. I said a pacemaker might be

18

helpful. At that time the child was being resuscitated,

19

and I had hoped that he would improve.

20

Q. Yes. And perhaps you can tell

21

us then what happened after that initial phone call.

22

A. I came down to the hospital.

23

Q. Why?

24

A. Because I felt I wanted to see

25



1
2 how the child was doing and how the resuscitation was
3 proceeding.

4 Q. So regardless of the specifics
5 of what was told to you in that phone call ---

6 A. Yes.

7 Q. - and regardless of the
8 medical discussion between you and the cardiac
9 fellow ---

10 A. Yes.

11 Q. - the fact of the matter is
12 in simple lay terms this was a pretty serious situation
13 because you felt it necessary to come down to the
14 hospital ---

15 A. It is always serious ---

16 Q. - you weren't about to stay
17 home.

18 A. Mr. Tobias, it is always very
19 serious when there is a child who has a serious
20 rhythm disturbance in the night or any other time
21 who might die, and as the staff cardiologist, I
22 think it is my duty to be there and ---

23 Q. Well, Doctor, do you go to
24 the hospital as a result of every single call that
25 you get when you are on call?

A. When I am the staff cardiologist



1
2 and there is a serious problem, yes.

3 Q. Well, okay. I am just trying
4 to be fair. Then you would agree with me that it
5 was a serious problem?

6 A. Yes, when a ---

7 Q. - and you consider ---

8 A. When a child has a serious
9 rhythm disturbance that the fellow feels he has to
10 call me about it at night, that is ---

11 Q. Well, what I am trying to get
12 at is this, Doctor, to be fair: it was serious enough
13 for you to get out of bed and get dressed and come
14 down to the hospital?

15 A. Sure.

16 Q. You weren't about to monitor it
17 by telephone?

18 A. No.

19 Q. Or stay at your telephone?
20 You wanted to come down and be there yourself?

21 A. Of course.

22 Q. All right. So we know that
23 obviously there had been a very sudden deterioration
24 because we have a child that you had no reason to
25 be concerned about on Saturday afternoon and less
than 12 hours later you are called and you have to



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come down to the hospital to take charge.

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A. I think when you have a child with a history of rhythm disturbance who requires a cardiac monitor and an apnea monitor, I wouldn't say that you had no reason to be concerned about this child.

It means that this child is unstable, this is true. Whereas at that time on Saturday the child didn't show any serious rhythm disturbance, it was always possible, and maybe I was mistaken in being too unconcerned but ... Okay.

Q. Doctor, the great majority of children in their first month of life are at home, are they not?

A. I would hope so.

Q. I would hope so too, and I mean to that extent any time you have a neonate who is in the hospital you have got some reason to be concerned?

A. Yes.

Q. This is serious business. It is not something you take lightly.

A. Yes. It all depends on what the problem is. If it is just gastroenteritis or a different problem. It depends on what the problem



1
2 is.

3 Q. But you agree with me if a
4 child has to be admitted to the cardiac ward in his
5 first month of life, that is not the usual or normal
6 circumstance?

7 A. Of course.

8 Q. Obviously that child has some
9 problem otherwise he or she would not be in the
10 hospital?

11 A. Yes.

12 Q. So to that extent I hope that
13 you and your colleagues at the hospital are concerned
14 in every single case where a child is hospitalized?

15 A. Absolutely.

16 Q. But you agree with me or at
17 least I thought you did a few moments ago that in
18 the Jordan Hines case, given the fact that you are
19 concerned about all of your patients, you weren't
20 overly concerned. There was no reason to be alarmed
21 on the Saturday afternoon?

22 A. I am not sure what you are
23 getting at, really.

24 Q. All I am getting at, Doctor,
25 is this very simple proposition, and I will put it
to you directly and ask you if you agree or disagree



1
2 with me: In the case of Jordan Hines, the onset of
3 terminal events and the deterioration was very, very
4 sudden?

5 A. It always is sudden.

6 Q. And very, very extreme.

7 A. Yes. I think you are - every
8 child who gets into difficulty gets into those
9 difficulties suddenly. This is the way infants are.
10 When they are sick they change suddenly. It is not
11 a gradual process. It is very rare that a child will
12 slip very gradually ---

13 Q. Doctor, are there degrees of
14 suddenness?

15 A. Well, there may be. I don't
16 know what you mean by "sudden".

17 Q. Well, I think it is a fair ---

18 A. From one minute to the next
19 a child may be in a regular rhythm one minute and
20 develop an irregular rhythm the next minute, and he
21 can tolerate this maybe for a few seconds; maybe -
22 for a minute or two and then he will be in difficulty.

23 Q. Well, Doctor, I am having a
24 great deal of difficulty in understanding your
25 evidence. Unless I have been asleep for the last
two months I thought that I understood Dr. Rowe to



1
2 be telling us that one of the signs that would point
3 to digoxin toxicity in his opinion, as well as
4 other causes - it is not only indicative of digoxin
5 toxicity - that one of the symptoms he would be
6 concerned about would be a sudden and rapid
7 deterioration.

8 That phrase has been used numerous
9 times by counsel, by witnesses before this Commission.

10 A. Yes.

11 Q. Sudden and rapid deterioration.

12 A. Yes.

13 Q. Now I understand that in the
14 case of anyone deteriorating, be it a 95 year old
15 man or a one day old child, when you start to die
16 that happens fast.

17 A. Yes. Right.

18 Q. But there are certainly
19 degrees of suddenness?

20 A. Yes.

21 Q. And rapidity?

22 A. Correct.

23 Q. And you as a trained clinician
24 can give us opinion: I hope as to what you would
25 regard under those circumstances as very sudden or
moderately sudden or not sudden at all. Is that



1

2

correct?

3

A. Yes.

4

Q. So you agree with Dr. Rowe

5

I hope that in the Jordan Hines case the deterioration
was indeed sudden and rapid?

6

A. Yes.

7

Q. And I hope you agree with Dr.

8

Rowe and with Dr. Fowler that it was also somewhat

9

unexpected?

10

A. Somewhat unexpected, right.

11

Q. And yet you never once

12

immediately considered Sudden Infant Death Syndrome?

13

A. No, not at the time because

14

I had the other thoughts in my mind. I was wrong,

15

but this is what I thought. I am telling you what
I thought.

16

Q. You also told me that there

17

was an element of surprise; you were somewhat

18

surprised?

19

A. Yes.

20

Q. Well, I don't want to get into

21

a debate with you on what degree of surprise, but we
can agree that you were surprised?

22

A. Yes.

23

Q. And if you were surprised, and

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if you agree that the deterioration was very, very
rapid and very sudden, was that also not one of the
factors that must have weighed on your mind in
deciding to go to the autopsy?

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A. Yes. I went to the autopsy because I knew the child had structural heart disease and I was trying to - I wanted to see the heart the way it looked, the heart muscle in particular and whether there were ---

MR. ORTVED: Let her finish.

THE WITNESS: I am sorry, whether there were any gross signs of myocarditis.

MR. TOBIAS: I apologize, Mr. Ortved.

Q. Would you agree with me, Doctor, that in this particular case, initially, the circumstances were somewhat curious, somewhat bothersome? You suspected infection and you wanted to test your theory and that is why you went to the autopsy?

A. Yes.

Q. Now you indicated yesterday in your evidence that at the time that you saw the heart at gross autopsy, your diagnosis was not confirmed entirely. I believe those were the words that you used. You told us there was no enlargement of the heart but the heart was pale and there was some hemorrhaging seen.

A. Correct.

Q. So certainly on the basis of the gross observations of the heart, you still strongly



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suspected the viral infection theory.

A. I suspected it but not as strongly since the heart was not enlarged but I still suspected it.

Q. All right. Your faith in that theory was somewhat shaken, but was it still as far as you were concerned the leading contender?

A. Yes.

Q. In fact you indicated yesterday that it wasn't that your diagnosis was unconfirmed, but that it was not entirely confirmed?

A. Yes.

Q. So you still believed in that diagnosis, although somewhat less strongly as a result of the observations on gross autopsy.

One thing I am curious about and I was hoping you could help me. I don't understand really the procedure, the methodology in which an autopsy takes place. What was it, what part of the procedure was it that you actually observed? In other words, how much of the initial postmortem examination were you actually present for?

A. After I was shown the heart of the child.

Q. I'm sorry, I didn't hear the end.



D3

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A. I did not observe the autopsy,
I just wanted to see the heart.

4

5

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Q. So you did not, you did not
actually observe the procedure by which the heart
was located?

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A. No.
Q. Now I take it, and correct me
if I am wrong, when they examine the heart grossly,
do they remove it from the body?

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11

12

13

A. Yes.

Q. Surgically?

A. Yes.

Q. It is dissected out of the
body, out of the chest cavity?

14

15

16

A. Yes.

Q. So you wouldn't normally see
that dissection?

17

18

19

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A. I could have.

Q. I am actually using the wrong
term. Would you have seen, would you have been
present for the opening of the chest cavity and
the removal of the heart?

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A. I could have been, but I
wasn't.

Q. You were not in that particular
case?



D4

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A. No.

3

Q. So your observations I take it

4

then consisted of examining the heart?

5

A. Right.

6

Q. After it had been removed?

7

A. Correct.

8

Q. And did you observe or see any

9

of the other organs at that time?

10

A. No.

11

Q. So you had no information

12

whatsoever about what the other findings were?

13

A. Not at all.

14

Q. And that information I take it

didn't come to you until much, much later?

15

A. Correct.

16

Q. Is that correct?

17

A. That is correct.

18

Q. Now, at the time that you

observed Jordan Hines' heart, did you have a discussion

19

with anyone in pathology?

20

A. I didn't have any discussion

21

with anyone, except the person who was showing me

22

the heart. I can't remember who that was, but it

23

wasn't Dr. Becker.

24

Q. That was my next question. Are

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you satisfied today that it was not Dr. Becker?

A. It was not Dr. Becker, no.

Q. And I believe you told us yesterday, and please correct me if I am wrong, that there were no further discussions with Dr. Becker following the observation of the heart?

A. No.

Q. And I believe again, and correct me if I am wrong that part of the reason for that was that the people in pathology became a little bit harder to convince to give information out because of the police investigation?

A. No, in fact I asked how long would it take for me to get some information on the microscopic examination of the heart muscle. I know from past experience, and they told me again it would take three or four weeks at least.

Q. Is Dr. Becker an authority not only on the question of SIDS but in pediatric pathology generally?

A. I think so, yes.

Q. Is he, obviously he is a man whose opinion you would respect?

A. Absolutely, yes.

Q. What I am concerned about is



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this, and perhaps you can give me an explanation.

3

You agree that the death of Jordan Hines was some-

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what curious, and certainly unexpected?

5

A. Yes.

6

Q. And very definitely rapid?

7

A. Yes.

8

Q. It caused you enough concern

9

that you wanted to confirm, or at least get some

10

better idea regarding confirmation with respect to

11

you diagnosis of viral infection, and your concern,

12

your special concern was enough that you went to see

13

the heart. You obviously must have been somewhat

frustrated?

14

A. Yes.

15

Q. Because basically what you

16

found out was neither here nor there, it didn't

17

confirm nor unconfirm your diagnosis. But at no

18

time did you seek out Dr. Becker. At no time did

19

you attempt to speak to him. Do you find that

20

somewhat curious, would you not have, or I would

21

have expected rather that you might want to seek

his opinion out and talk to him about the viral

22

infection theory?

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A. I made several enquiries when

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I returned from my week's break about the information

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regarding the microscopy and I was told that I could not have this information.

Q. Who told you that?

A. I can't remember, I phoned pathology. I did not speak to Dr. Becker, I'm not sure who I spoke to, but there are several pathologists.

Q. Was Dr. Becker available at that time?

A. I didn't even know Dr. Becker was the one in charge of the autopsy. I was merely asking the people who worked in pathology first of all how long it takes to obtain the microscopic data and I knew I had to wait at least four weeks.

Q. Would you have had --

MR. ORTVED: Let her finish.

MR. TOBIAS: I'm sorry, Mr. Ortved.

THE WITNESS: By that time the police investigation had begun and I knew from previous experience when a case becomes one of the coroner's I am not privileged to have any information unless the coroner so directs.

MR. TOBIAS: Q. I take it that it would not have been overly difficult at that time to discover who the pathologist was?

A. This would not have helped me



D8
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2 at all. There was no point in pursuing it, having
3 asked a few times and having been told this is what
4 is happening, I did not pursue it any further.

5 Q. Doctor, the question was,
6 would it have been difficult to find out who the
7 pathologist was?

8 A. I didn't think it would be
9 possible for me to find out who the pathologist was,
10 but he had no right to tell me.

11 Q. Had you known that it was
12 Dr. Becker, I assume you could have made contact
13 with him?

14 A. I could have made contact
15 but he would not have any right to tell me anything.

16 Q. How did you know that at that
17 time?

18 A. I knew there was an investiga-
19 tion going on and the coroner was involved.

20 Q. And did you know at that time,
21 and I don't mean suspect, I mean did you know that
22 if you had posed the question to him: Doctor, I
23 suspect viral infection, what did you think on the
24 basis of the gross findings, did you know for a fact
25 that he would have said, no, I can't discuss that
with you, I am sorry it is a police matter?



D9

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A. Yes, I knew that.

3

Q. You knew that for sure?

4

A. Yes.

5

Q. How did you know that, from

6

your own experience in the past?

7

A. Yes.

8

Q. And that is why you didn't

9

make any attempt to speak to Dr. Becker at all.

10

Now you also indicated in your evidence

11

yesterday that at the very early stages of the Jordan

12

Hines matter, after the tests and on the Monday when

13

you discussed it with Dr. Fowler and other cardiolo-

14

gists at the Hospital, that you didn't even entertain

15

the question of reporting the case to the coroner

16

because the parents consent to a post mortem had been

obtained?

17

A. That is correct.

18

Q. Are you aware of whether it

19

was obtained immediately, or was there at first a

refusal to give a post mortem?

20

A. I think it was immediately.

21

Q. Were you present at the time

22

when the Hines were ushered into the parents room

23

in the early morning hours of March 8th, 1981?

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A. Yes, I believe I went to see

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them to tell them that the child had died, but I
wasn't the one to get the consensus, Dr. Costigan
obtained that.

Q. I am sorry?

A. Dr. Costigan was the one.

Q. Do you have any recollection
as to whether or not before Dr. Costigan arrived
consent had been asked for?

A. Yes, I believe they initially
refused but yes, I think I recall that.

Q. You do recall that initially
they did refuse?

A. Yes.

Q. And what happened after
Dr. Costigan arrived that made them change their
minds, do you have any information?

A. I told Dr. Costigan that it
was very important to have this autopsy carried out,
and also that I suspected viral infection and we
should take samples for viral studies, and we obtained
the consent.

Q. Now do you know whether or not
Dr. Bain in preparing his report had available to
him the medical chart of Jordan Hines, and specifically
the preliminary and final autopsy reports?



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A. Yes, he told me that he had.

3

Q. So he indicated that he had

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seen them. And I take it that - well I shouldn't

5

say I take it. Do you know, do you have any knowledge

6

as to whether or not other than the chart and the

7

final and preliminary autopsy reports he had any

8

further information that would not have been avail-

9

able to Dr. Becker?

A. I don't know.

10

Q. That is something that I

11

will ask him.

12

Now with respect to the microscopic

13

examination that you felt was needed in order to

14

confirm the diagnosis of infection: I understand

15

from your evidence yesterday that at some time,

16

although it is not clear when, that microscopic

17

study was done?

A. Yes.

18

Q. Would it have been that

19

microscopic study that allowed Dr. Becker to make

20

the statement in his preliminary autopsy report that

21

there was no evidence of infection?

A. Yes.

22

Q. And do you agree with me that

23

at least in his mind that lack of any evidence of

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infection ruled out your initial diagnosis?

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A. Yes, it ruled it out.

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Q. Now at that particular time

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the microscopic studies had been done, but that

6

doesn't help us in knowing when it was done, does it?

7

A. It was done at some stage after
the autopsy.

8

9

Q. My point is you didn't see it,
it wasn't done when you were present?

10

A. No.

11

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Q. So you would have no information
for us whatsoever about when the various steps in
the post mortem were completed?

13

14

A. I think you will get this
information from Dr. Becker.

15

16

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Q. All right. I agree, I agree.
By the same token I suppose there is no sense in
my asking you whether or not there was any further
investigation, postmortem investigation done between
the time the preliminary autopsy report was prepared
and the final autopsy report was prepared, because
you would have no information regarding that?

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A. No.

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Q. So I will save that question
for Dr. Becker as well then.

24

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Now I understand that yesterday your evidence was, and I am summarizing, and please correct me if I am summarizing unfairly: was that Dr. Becker's opinion was that SIDS caused the death; that you felt that was a good diagnosis and was consistent with all the pathological markers and clinical history of the child. Now, have I fairly summarized your evidence?

A. I think so.

Q. When did you first come to that opinion? In other words, you were asked by Miss Cronk whether in your mind pathology felt on the basis of that autopsy report that SIDS was the cause. You ultimately I think yesterday said, yes, I was satisfied that is what they were saying that it was the cause. When did you come to that opinion?

A. You mean the timing?

Q. Yes. Was that your opinion from the very first time that you read the pathology reports?

A. Yes.

Q. And I understood your evidence to be it was the reading of the pathology reports in conjunction with the reading of Dr. Bain's opinion.

THE COMMISSIONER: Autopsy reports,



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are you talking about the autopsy reports?

MR. TOBIAS: Yes, the autopsy reports.

THE COMMISSIONER: In conjunction
with Dr. Bain?

MR. TOBIAS: Q. In conjunction with
the Bain report. It was basically those two pieces
of literature which satisfied you?

A. Yes.

Q. So that from the very beginning
when that was made available to you, as far as you
were concerned your interpretation was that Dr. Becker
was calling it SIDS.

A. Yes.

Q. Were you not disturbed at the
time, or are you not disturbed today, about the
following phrases and words in the autopsy report,
and in particular I refer you to page 29 of the
medical chart of Jordan Hines, I am not sure if that
is available for you.

A. I think I know the phrases you
are going to refer to.

THE COMMISSIONER: I think I do too,
I think we all know them.

THE WITNESS: And I think we don't
have to look at the chart.



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MR. TOBIAS: Q. What I am concerned about obviously because in the very first line the word: "Query Sudden Infant Death Syndrome".

A. Yes.

Q. And I am obviously concerned about his statement after he indicates some of the pathological markers that were found. He says:

"This is the findings seen in SIDS."

A. I am sorry?

Q. He says:

"This is the findings seen in SIDS."

A. Right.

Q. Other findings:

"Other findings which support a diagnosis of a missed-SIDS are..."

And he enumerates a number of things. Then he says:

"This pathological evidence, in conjunction with the clinical history, makes the diagnosis of a missed-SIDS a possibility."

That is the other word I was concerned about.

Obviously I am concerned when he says:

"However, this does not explain the arrhythmias and further conclusions will have to await..."



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All I am saying is, if you felt that strongly on reading this report and Bain's report.

A. Yes.

Q. That is was SIDS and they were coming to that conclusion, they were not just raising the possibility, were you not somewhat disturbed by the degree of tentativeness in this report?

A. Well, Mr. Tobias, nothing is ever cut and dried in medicine, you always use the term "possibility" when you are not entirely certain.

I think what I took into consideration is you have two authorities here, we have an authority in pathology, a pathologist who does autopsies on SIDS almost constantly when they are requested. We have Dr. Harry Bain who is a former Professor of Pediatrics and also an authority in this field. I must say I bow to their judgment because they know more about it than I do.

Q. I can certainly appreciate your respect for the opinion of Dr. Harry Bain, and I quite agree with you on your interpretation of his report. I think he makes it quite clear that as far as he is concerned it was SIDS.

Again I pose the same kind of question



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to you. Since you were obviously relying on Dr. Becker's opinion and had some respect for it, were you not somewhat concerned about the degree of tentativeness he used in his chosen words?

A. Somewhat concerned, what do you mean by that?

Q. Well specifically it seems to me that you came to the conclusion at a very early stage, the first time you read the report, that he was saying it was SIDS.

THE COMMISSIONER: That is not quite what she said. Did you say that? The first time you read the autopsy report - I had understood her to say it was Dr. Bain plus the autopsy report.

THE WITNESS: Yes.

THE COMMISSIONER: That persuaded her that it was in fact ---

MR. TOBIAS: All right, but then I asked the question ---

THE COMMISSIONER: Before we go any further, Mr. Tobias, are you really putting the question to her, but aren't you really putting the argument to me?

MR. TOBIAS: No, I am not, sir.

THE COMMISSIONER: All right.



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MR. TOBIAS: I am not, sir.

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Q. I specifically want to ask the Doctor whether it was Bain's opinion and Becker's opinion she was relying on, is the answer to that yes?

5

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A. Yes.

7

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Q. And am I right, I thought I was, that you had that impression of Becker's opinion, the impression you have just told us about from the very early stages when you first saw the report?

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A. Yes.

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Q. All I want to know is how you came to that impression. Because that is certainly not the way I read that report.

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A. First of all he had ruled out my theory as it were of infection.

16

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Q. Correct.

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A. And so he had described some of the subtle changes that are seen in Sudden Infant Death Syndrome. I saw what he had described and it was well described in the literature, and we took that with the past history reviewing the history of the child again and Dr. Bain's opinion. I think the two together strongly support the possibility of SIDS.

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Q. Isn't it fair to say, and I put this proposition to you and ask you whether you agree with me, that in Dr. Bain's opinion it was certainly a possibility?

6

A. Yes, right.

7

Q. Is that fair?

8

A. Yes.

9

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Q. Do you see that there is a distinction between that and the statement that both Dr. Bain and Dr. Becker had concluded that it was SIDS? Do you agree with me that in Dr. Becker's mind there was still a question?

13

A. Yes.

14

15

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Q. And can I take it that you were not particularly bothered by the questions that Dr. Becker raised because of Dr. Bain's very conclusive and definite opinion?

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A. Right. I think Dr. Becker's question about the arrhythmias, he wasn't really aware of the type of arrhythmias the child had which had been noted on the chart. I think he has some concern about that.

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Q. Now, you also said yesterday that to your knowledge and understanding the very, very detailed microscopic study of the heart which would have to be undertaken in order to test the theory of problems in the conducting system were not undertaken?

A. No.

Q. And I believe you told us that it wasn't done because at the time there was no one at the Hospital who had sufficient expertise to do it?

A. Correct.

Q. All right. Now, did Dr. Becker to your knowledge know that at the time?

A. I don't know. I presume he did, I'm not sure. He has to tell you this himself.

Q. All right. In any event it is clear from his autopsy report, I would ask you if you would agree with me, that he was certainly expecting that study to be done by someone?

A. Yes.

Q. And in fact had said that further conclusions will have to await examination of the conducting system. He obviously had in mind doing that examination in the Hospital?

A. Yes. Although, I don't think he would have been the one to do it.



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Q. All right.

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A. He would have looked for somebody
who has expertise in that area to do it.

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Q. All right. Perhaps this question,
Mr. Commissioner, is more fairly put to Dr. Becker.

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You agree with me that it appears that Dr. Becker
expected that study to be done by someone at The

8

Hospital for Sick Children?

9

A. Either there or elsewhere, wherever
the expertise was.

10

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Q. All right, that's fair. It is a
possibility that if the expertise wasn't at Sick Kids
that that study could be done somewhere else?

12

13

A. Yes.

14

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Q. All right, fair enough. Now, with
respect to your own conclusions on the basis of the
autopsy report and the Bain report, you were asked
yesterday by Miss Cronk after having seen the Bain
report and preliminary autopsy report, whether or not
you were satisfied with SIDS as the explanation for
this death. Your answer was that it seemed consistent
with it and that it had been well explained by the
autopsy findings and clinical history. You told us
that it was a good diagnosis. Specifically what
history were you referring to?

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A. The history of the child's so-called choking spell at home.

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Q. Yes.

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A. From which he had to be resuscitated, the history of several episodes of apnea and bradycardia.

6

Q. Yes.

7

A. The child's lethargy, the child's upper airway obstruction, the respiratory infection which caused some cough and mucus obstruction which will often tip the balance to precipitate SIDS in a child who has had near missed-SIDS before. So, all these factors.

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Q. All right. Now, particularly your comment regarding the need to resuscitate the child. Is it your understanding that the child had to be resuscitated at home?

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15

16

A. Yes, this is the way the mother did it. The mother shook the child. This is often the way it is done.

17

18

19

Q. All right. That's what you mean by resuscitation?

20

21

A. Yes.

22

Q. There was no formal kind of resuscitation effort involving ---

23

24

25

A. There was no note of that.



E.4

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Q. --- drug therapy or shock therapy?

3

A. Oh, not at all, no. This was not

4

in the history, I read the history.

5

Q. All right. Then other than that

6

incident, was there any other incident that you are

7

aware of in the history where he required resuscitation?

8

A. No.

9

Q. All right. Now, do you agree

10

with me that there are various different types, or I

11

won't say that, I won't say different types of apnea,

12

A. Yes.

13

Q. And part of the way that you

14

measure it and part of the thing that you are looking

15

for is how long does the period of apnea last?

16

A. Yes.

17

Q. Now, I take it that as a doctor

18

you would be far more concerned with an apnea that

19

was being exhibited that lasted let's say 10 to 20

20

seconds than you would with one that lasted 2 to 5

21

A. Yes. It depends on the frequency

22

of the bouts of apnea lasting 2 to 5 seconds and if

23

there were many of those I would be concerned.

24

Q. Okay, so you would be concerned

25



E.5

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with the frequency of the apneic periods?

3

A. Yes.

4

Q. And the length of the apneas?

5

A. Yes.

6

Q. Is that correct?

7

A. That's correct.

8

9

10

Q. All right. Now, specifically with respect to apnea, it is my understanding from the other evidence that we have heard, that all apnea is is a period when a child stops breathing?

11

A. Yes.

12

13

Q. And am I correct that apneas can also be indicative of respiratory problems?

14

A. What kind of respiratory problems are you referring to?

15

Q. Well, for instance, pneumonia?

16

17

A. No, you usually don't have apnea when you have pneumonia, you have a different type of breathing.

18

19

Q. All right. I am talking now about in a neonate under one month old?

20

A. Yes.

21

22

Q. Is it possible to have apnea as a result of a serious viral infection such as pneumonia? Is it possible that that child will exhibit periods of apnea?

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E.6

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A. I suppose it is possible, yes.

Q. All right. Is it also possible that the child might exhibit periods of apnea from extreme congestion in the upper respiratory tract?

A. It's not usual, it's not usual.

Q. I'm sorry?

A. It's not usual.

Q. Okay. Does it happen?

A. It could happen, yes.

Q. Okay, fine. Is it also possible that an apnea, an apneic period can be the result of bradycardia?

A. I think the apnea occurs usually before the bradycardia.

Q. All right. What I asked you is, does it happen?

A. It happens.

Q. That it is exhibited as a direct result of bradycardia?

A. Yes, okay.

Q. All right. And I understand that that has something to do with the heart beating much slower and less efficiently and therefore not enough oxygen getting to the lungs?

A. Right.



E.7

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Q. Am I correct in terms of the methodology?

4

A. Correct.

5

6

Q. All right. Now, with respect to the lethargy, is it not true that that is indicative of a whole host of problems?

7

A. Correct.

8

9

Q. Especially in neonates?

10

A. Correct.

11

Q. And it is not a very significant or helpful signpost taken by itself?

12

A. Taken by itself, no.

13

14

Q. All right, fine. And with respect to periods of bradycardia, is it not so that bradycardia can be exhibited as a sign of digoxin toxicity?

15

A. Yes, it can.

16

17

Q. And that's one of the things that you look for?

18

A. Yes.

19

Q. Is that correct?

20

A. Yes, that is one of the many types of rhythms.

21

22

Q. All right. Now, let's look at the reverse of some of my questions. Would something like pneumonia or a very severe upper respiratory

23

24

25



E.8

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infection or congestion have any effect on heart

3

rhythm?

4

A. Heart rhythm?

5

Q. Yes.

6

A. Not usually but it might.

7

Q. It might. In fact, that's why it

8

is considered good medicine if you are treating a

9

patient or a child, particularly in a neonate who has

10

suspected respiratory problems, to admit that child

11

to a cardiac ward where you can monitor the rhythm.

Is that also correct?

12

A. I'm sorry, could you repeat that

13

question?

14

Q. What I'm saying is, that is why

15

it is considered good medical practice where you are

16

treating a child of suspected respiratory problems

17

to admit that child to the cardiac ward and keep the

18

child on a monitor so that you can observe cardiac

19

A. No, I think that's wrong. I think

20

if you suspect a respiratory problem in a child

21

sufficiently severe to admit the child to hospital

22

you wouldn't necessarily want to admit the child to

23

the cardiac ward. If it is just a respiratory problem

24

and the child has no history of rhythm disturbance I

25



E.9

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would not admit this child to the cardiac ward, I

3

would admit it to the general ward.

4

Q. Regardless of where you admit the

5

child, would you want to keep track to pay very strict

6

attention to the cardiac rhythm?

7

A. No, I would have the nurse monitor

8

the pulse as she usually does.

9

Q. Well, would you give that child

10

an electrocardiogram?

A. No.

11

Q. You wouldn't?

12

A. No, unless a rhythm abnormality

13

had been demonstrated.

14

Q. Okay. And with respect to the

15

episodes of tachycardia.

A. Yes.

16

Q. Do you agree with me that that

17

is also a sign of digoxin toxicity?

18

A. Could be.

19

Q. Okay. Now, it would appear that

20

certainly the episodes of bradycardia, the episodes

21

of tachycardia, the episodes of apnea, while they are

22

indicative of SIDS or missed-SIDS are not exclusively

23

indicative of that particular illness?

A. I think I should say that this

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E.10

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child's episode of tachycardia was a sinus tachycardia. It was not an abnormal rhythm, it was just a fast rhythm. So, I think that type of tachycardia was a normal sort of tachycardia that you see in children, it was not a junctional tachycardia or supraventricular tachycardia.

Q All right.

A Looking at those strips that we have available on the chart, this child has had a fast sinus tachycardia going up to 182.

Q All right, I am grateful to you for clarifying that for me, but am I not correct that the particularly, or the particular clinical observations of apnea, coughing bouts, bouts of bradycardia, tachycardia, are not in any way exclusively indicative of SIDS or missed-SIDS?

A That's right.

Q There are other factors that can explain those?

A Yes.

Q And in fact our state of knowledge with respect to the cause of and being able to predict SIDS and missed-SIDS is very rudimentary, would you agree with that?

A Yes, there is a lot of research going on in that field.

(2)



E.11

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Q All right. And didn't you tell Miss Cronk yesterday that in fact there is quite a bit that we still don't know about SIDS?

A That I don't know. I think if you speak to Dr. Bain you may find that there is probably a lot more. I have not read extensively on the subject.

Q All right. How do you feel, can you offer an opinion on the general state of knowledge of SIDS as compared to cardiology problems?

A No, I cannot.

Q No, okay, fine. And that is because you are not an expert on SIDS?

A Correct.

Q All right, I will reserve that question for someone else then. Now, you indicated to Miss Cronk yesterday that had Dr. Becker known what kind of arrhythmia we were dealing with --

A Yes.

Q -- he would not have made the statement that he made in his pathology report?

A He might not have made that statement.

Q What is the source of your information regarding his knowledge of the arrhythmias?



E.12

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2

A. What is my source of information?

3

Q. Yes. How do you know what kind

4

of arrhythmias he thought he was dealing with?

5

A. I think he must have had some
information from the chart.

6

Q. Yes.

7

A. What was noted on the chart, but

8

as a pathologist, whether he communicated with the

9

cardiologist or not at the time, I don't know, but

10

maybe he didn't and just saw that the child had a

11

brady/tachycardia without any knowledge of what type

12

of tachycardia the child had, he might have suspected

13

something like a junctional or supraventricular

14

tachycardia, an abnormal tachy rhythm.

15

Q. Do you agree with me that the

16

pathology report, both the preliminary and the final

17

autopsy report, there is nothing on the face of those

18

documents that indicates the specific kind of knowledge

that Dr. Becker had regarding the arrhythmias?

19

A. Well, I would have to check on

20

that.

21

Q. Okay, please do.

22

A. That's right, he just had the

23

information that the child had spells of apnea

24

associated with bradycardia followed by tachycardia,

25



E.13

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sinus bradycardia and tachycardia.

3

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Q All right. So that by reading the report you don't know what his state of knowledge was regarding the specific kinds of arrhythmias?

5

6

A That's right.

7

Q You didn't discuss it with him or talk to him about it?

8

A I didn't discuss it with him.

9

10

Q All right. So that your statement yesterday, is it fair to say, is really no more than a hypothesis?

11

12

A Yes.

13

14

Q All right. In your mind, one possible explanation is that he was somewhat confused or didn't know specifically what kind of arrhythmias Jordan Hines had suffered and you are hypothesizing that had he known that, had it been brought to his attention, there was no kind of normal tachycardia here, that he then would not have been concerned with the arrhythmias?

15

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18

19

A He might not have been.

20

21

Q He might not have been. So, you are not even sure of your hypothesis?

22

23

A I am not sure what my hypothesis was, you would have to read me it.

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E.14

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Q Well, your hypothesis was that had he known that we weren't dealing with any sort of abnormal arrhythmia here, he would not have raised the concern about the arrhythmias not explaining or being consistent with SIDS?

A Yes. You were concerned, or I think Miss Cronk was concerned in her questioning that he used the word "possibility" and "query", and this was my explanation that he might not have been certain of the type of rhythm problems except for what he had available to him on the chart.

Q All right. In order to perhaps shorten this considerably let me read you a question and an answer that you gave yesterday which appears at page 7136, Mr. Commissioner, of Volume 36, and I am referring specifically to line 17:

"Q. Would you agree with me this far, Doctor, that it is possible that the term arrhythmias as used in the preliminary autopsy report could extend both to the tachycardias that the child had experienced and as well the bradycardias and the ventricular fibrillation which was apparently exhibited at the time of his death?



E.15

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"A. I could I suppose, yes."

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THE COMMISSIONER: It is "It could

4

I suppose, yes."

5

MR. TOBIAS: I'm sorry:

6

"A. It could I suppose, yes."

7

So, clearly you weren't sure and still
aren't sure what kind of arrhythmias Dr. Becker was
referring to?

9

A. Yes, that's correct.

10

Q. So, again, your general statement

11

that he might not have made the comment about being

12

concerned with the arrhythmias had he had more

13

specific information is only a hypothesis, you think

14

that is possibly one way of explaining why that

15

statement appeared there?

16

A. Yes.

17

Q. But you don't know for sure?

18

A. No.

19

Q. Okay, fine. And the explanation,
it could be an entirely different explanation once

20

we speak to Dr. Becker?

21

A. Yes.

22

Q. Do you agree with that?

23

A. I was questioned about what I felt
Dr. Becker had meant or why he had used the terminology

24

25



E.16

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that he has used and I would have put an hypothesis
for that.

3

4

Q That's right, you were only giving
us your impression?

5

6

A Exactly.

7

8

Q Of what you thought he had meant?

9

10

A Correct.

11

12

Q He is the only one who can tell us
what he did mean?

13

A And he will.

14

15

Q Okay, fine.

16

Now, when Mr. Percival was questioning
you yesterday, he asked a specific question about
your reaction once you became aware of the findings
with respect to digoxin levels in the tissue of
Jordan Hines?

17

18

19

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A Yes.

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Q I'd like to ask the question again
and ask you for a very specific kind of answer. It
is clear that when Jordan Hines first died, as far
as you were concerned the likely cause was a viral
infection. It is also clear that later, some time
later you changed and as a result of the autopsy
reports and the Bain opinion that you in your own mind
became satisfied that it was SIDS?

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E.17

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A. Yes.

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Q. Now, was it some time after you had already come to that conclusion that you first learned of the digoxin levels?

5

6

A. No, I learned about this earlier.

7

8

Q. All right. So that when you came to the conclusion that it was SIDS you knew about the digoxin levels?

9

A. Yes.

10

11

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Q. All right. Did, in the formulation of your opinion and the making up of your mind that you were satisfied with this SIDS explanation, how do you account for the presence of digoxin in the tissue?

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A. I really have no explanation. The child was not on digoxin and the only way I can explain it is that it could have been an inadvertent dose. I have no idea what these levels mean, whether they were in fact toxic levels and I hope to learn a great deal more about it but it is of considerable concern to me that these digoxin levels were found. I would go into something which is more definite, namely, the autopsy findings in this case with the history because I understand what that means. I don't understand what the digoxin levels mean.



E.18

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MR. TOBIAS: Mr. Commissioner, I think
I am going to be about another five or ten minutes.

4

THE COMMISSIONER: Yes, all right.

5

MR. TOBIAS: I had hoped to have
finished by about 11:30 but perhaps we can ---

6

7

THE COMMISSIONER: Okay, fine, if you
are moving on to something else now we will take 20
minutes then.

8

9

MR. TOBIAS: All right, thank you.

10

Thank you, sir.

11

--- Short recess.

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F/EMT/ak

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---Upon resuming.

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THE COMMISSIONER: Yes, Mr. Tobias?

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MR. TOBIAS: Thank you, Mr. Commissioner.

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Q. I would just like to explore very briefly the area that we were talking about just before the break, Dr. Rose, regarding your state of knowledge at the time you formed your conclusion about the cause of death with respect to the dig. findings.

10

11

12

First of all can I take it that although I knew at the time that digoxin had been found you were not aware of the specific levels?

13

A. No.

14

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Q. Can I also take it that even had you been aware of the specific levels recorded you in your own mind, not being an expert on the interpretation of the digoxin readings, would not have been able to attribute any particular significance to that one way or the other?

19

A. No.

20

21

22

23

Q. All right. So that the only information you have was that the child hadn't been prescribed or administered digoxin; that it had been found in his body?

24

A. Correct.

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Q. And that is really a fair summary of your state of knowledge?

A. Yes.

Q. Okay. If we could erase that, if we had never found digoxin in the tissue of Jordan Hines --

A. Yes.

Q. -- would you then be even more convinced still that the likely cause of death was Sudden Infant Death Syndrome?

A. Yes.

Q. All right. That would obviously eliminate something that has to be of great concern to you and the rest of the people at the Hospital?

A. Right.

Q. Is it fair then to say that the presence of digoxin in the body of Jordan Hines does make somewhat more tentative your conclusion about the cause of death being Sudden Infant Death Syndrome?

A. Yes, I suppose, though, it is a digoxin-like substance. I don't think we can say it was digoxin. It was a substance that tested out in the assay as digoxin.



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3 Q. Is it fair to say that the
4 presence in his body of any substance whatsoever
5 that you wouldn't expect to be there, would make somewhat
6 more tentative your conclusion about Sudden Infant
Death Syndrome being the cause?

7 A. Yes, if I knew what it meant.

8 Q. Obviously if we found massive
9 quantities of arsenic in his body you would be really
concerned?

10 A. Yes, of course.

11 Q. Okay. And be it digoxin or
12 digoxin-like substances, that creates somewhat of a
13 quandary and makes somewhat more tentative your
14 conclusion. Do you agree with that?

15 A. Yes, except if the presence
16 of these digoxin-like substances could be related
17 to maybe the maintenance dose be given to Jordan
18 versus the child in the cot next door, that wouldn't
19 have caused any toxicity necessarily, but might
20 account for a digoxin-like substance in the tissues.
21 So it wouldn't necessarily mean that the child had
been poisoned by digoxin.

22 Q. I understand that, but with
23 respect I am not asking you to postulate. What I
24 am saying is that the simple problem with your
25



1
2 explanation, and certainly one of the things you
3 have got to be concerned with is the fact that
4 digoxin or digoxin-like substances were found in the
5 body and you wouldn't have expected that to be the
6 case?

7 A. Right.

8 Q. So against that background I
9 ask you again isn't it a fact that that finding makes
10 somewhat more tentative your conclusion?

11 A. You might say that, yes.

12 Q. All right. Now Miss Cronk
13 yesterday in direct examination asked you about any
14 familiarity you had with respect to the literature
15 on SIDS, and I think it is fair to summarize your
16 evidence by saying that you are not an expert on
17 SIDS; you don't read all the literature --

18 A. No.

19 Q. And you weren't that familiar
20 with it, but you did venture a comment. You were
21 asked about a prolonged QT interval, and whether or
22 not there is literature which indicates that that
23 might be indicative of SIDS.

24 Your answer was that in the case of
25 Jordan Hines there was not a prolonged QT interval.
However you think that that theory of the QT interval



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being indicative has been discarded.

3

A. Yes, largely.

4

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Q. Where do you gain that understanding from that in fact that theory has been discarded? What is the source of that?

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A. This is based on a number of prospective studies on QT interval prolongation, and reports that I have heard at meetings about prospective studies of infants, looking particularly at their QT interval and then relating it to Sudden Infant Death.

12

13

Q. When you say that it is based upon reports, do you mean studies?

14

A. Studies, yes.

15

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Q. Studies and obviously papers that were published with respect to the results of those studies?

17

A. Right.

18

19

Q. So you have done some reading?

A. Yes.

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Q. In the area? How recently have you done that reading?

22

23

A. I have done some reading very recently, like in the last couple of weeks.

24

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Q. Yes.



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A. I have been at meetings over the past couple of years where this problem has been discussed, and I remember writing a report on the meeting of the American Heart Association where a study was reported on on the QT interval in infants.

Q. Now specifically your belief that the QT interval theory has recently been discarded --

A. I am not saying discarded but it probably is not intimately related to a high incidence of Sudden Infant Death.

Q. All right. Is that conclusion or opinion the result of recent readings?

A. Yes, it is recent readings.

Q. All right. What readings are you referring to?

A. That is a study of Southall in Britain, Brompton Hospital, the British Medical Journal.

Q. Right.

A. I think you provided Dr. Fowler with and I had seen before.

Q. Right. You are referring in fact to the article which was put in as an exhibit?

A. Yes.



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Q. Which appeared on April 2nd,
1983 in the British Medical Journal.

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A. British Medical Journal.

5

6

Q. Is that correct? That was the
Southall Study?

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A. Yes.

8

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Q. In fact it was a committee of
cardiologists --

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A. Yes.

11

Q. -- but Southall was if I can
use the phrase, the team leader?

12

A. That is right.

13

14

Q. All right. And Mr. Commissioner,
I believe the witness has referred to exhibit?

15

MS. CRONK: 180.

16

MR. TOBIAS: Sorry, Miss Cronk, 180?
Yes, that is correct, 180.

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Q. Now was it your understanding with
respect to that particular article - do you have
the article in front of You?

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A. Yes.

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Q. I understand that one of the
things that they were trying to do was monitor a
group of infants in order to see whether prolonged
QT intervals or in fact apnea was indicative of -



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2 was a good indicator of infants who had ultimately
3 succumbed to SIDS?

4 A. Yes, prolonged apnea.

5 Q. Prolonged apnea?

6 A. Yes.

7 Q. Is that correct? Is that
8 basically what they were trying to do.

9 A. Yes.

10 Q. All right. And I also under-
11 stand that in order to do that they monitored a very,
12 very high number of children?

13 A. Yes.

14 Q. And of that very, very high
15 number that was monitored they obtained a group who
16 later did succumb to what they thought was Sudden
17 Infant Death Syndrome?

18 A. Yes.

19 Q. And of course they also obtained
20 a control group?

21 A. Yes.

22 Q. Is that also correct?

23 A. Yes.

24 Q. Okay. And it is my understand-
25 ing that the results of the study were results obtained
before the onset of terminal events?



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A. Yes.

Q. They had monitored them at very early stages of life so what they quite ingeniously wound up with was ECG tracings of children who later turned out to be SIDS victims?

A. Yes.

Q. And you agree with me then that it would appear in any event from the results of a study that the prolonged QT interval, and in fact prolonged bouts of apnea, are not necessarily associated with children who ultimately succumb to Sudden Infant Death Syndrome, nor are they particularly good indicators of which children will succumb to it?

A. Yes. The only problem with this study is that they did 24-hour monitoring of the electrocardiogram. Now they only monitored 24 hours. Now it is quite possible for a child to have a critical dysrhythmia that is not picked up in a 24-hour monitor.

Q. That is correct.

A. We come across it all the time.

Q. Yes.

A. So I think these are - this is one of the criticisms of the study.

Q. In fact did they not finally



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come up with a group of some 29 infants?

A. Yes.

Q. Who did subsequently suffer the Sudden Infant Death Syndrome?

A. Yes. That is what they did.

Q. All right. And I understand that the ages of those children ranged anywhere from 5 days to 144 days. I am referring now to page 2 of the study, Mr. Commissioner, Table 3.

Am I correct, Doctor, when I say that the ages at recording days ranged from 5 days to - I think I said 144, and that was Case No. 28?

A. Yes.

Q. And in fact if you look at page 4 under the heading "Results" they obtained a total of 40 taperecordings on those 29 infants. And in fact what you are saying is that it is entirely possible that with 24-hour monitoring they could have failed to pick up some serious dysrhythmia which might have been shown at some later time.

A. Yes.

Q. Or earlier time, but in any event at a time when they were not monitoring?

A. That is right.

Q. Do you agree with me, however,



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that the fact that they ran these monitors on 29 children makes that somewhat less likely? In other words, it is a high - it is a high chance that they would have missed, even though they were only using 24-hour recordings, that they would have missed critical dysrhythmias in all 29 children?

8

A. They might have missed it in some of them.

9

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12

Q. All right. They might have missed it in some of them. Do you agree with me, though, that the odds are somewhat higher that they might have missed in all of them?

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14

A. I cannot really comment in detail about this.

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19

20

Q. Okay. Just logically, Doctor? If their sample group was 5 as opposed to 29, then your very valid criticism of the study would be even more valid. The smaller the group gets the more likely it is in probability but they might miss a dysrhythmia by limiting their monitoring period to only 24 hours. Do you agree with that?

21

A. Yes.

22

23

24

25

Q. And the higher the number gets - I mean, you know, if they had been fortunate and had 100 children who ultimately went on to succumb



1
2 to SIDS, then that would be even less likely. Do
3 you agree with that?

4 A. No. Do you want to go on with
5 this paper? Are you asking me about the literature
6 now or about Jordan Hines?

7 Q. All right. Specifically what
8 I am asking you is do you agree that in the case of
9 all 29 who ultimately succumbed to SIDS, in none
10 of them did they find any arrhythmias or pre-excitation?

11 A. That is what the paper says.

12 Q. All right. That is what the
13 paper says and that is what the results of the study
14 were.

15 A. Okay.

16 Q. All right. And do you also
17 agree with me in none of the 29 did they find
18 prolonged periods of apnea?

19 A. Prolonged periods of apnea,
20 right.

21 Q. Yes.

22 A. They concluded there might
23 have been respiratory instability which needs further
24 study although they had short periods of apnea.

25 Q. I agree. I agree. And they
also concluded, did they not, with respect to apnea



1
2 and reading from the last page just above the
3 reference to "References", I am going to three
4 paragraphs above that, around the middle of that
5 paragraph:

6 "This study does suggest, however, that
7 prolonged apnea sometimes detected
8 after a near miss episode may be the
9 consequence of the episode rather than
10 the cause."

11 A. Prolonged apnea.

12 Q. All right. They are referring
13 there to prolonged apnea. You certainly wouldn't
14 challenge that statement, would you?

15 A. They are describing their
16 findings. It is simply that.

17 Q. All right, fine. Now would
18 you agree with me or disagree with me that on the
19 basis of this study in any event some serious
20 question is raised about how reliable a signpost
21 arrhythmias and prolonged apnea is of SIDS death?

22 A. Based on this particular study
23 there is a question.

24 Q. There - I'm sorry?

25 A. There is not a serious question
but it is a question. I am sure there will be other



1
2 data that you will hear about - Dr. Bain has read
3 more than I have.

4 Q. Yes, I understand.

5 A. Okay.

6 Q. But you agree with me there is
7 a question there based on this study?

8 A. In this particular paper?

9 Q. That is what the findings --

10 A. This particular study, yes.

11 MR. TOBIAS: Those are all my questions,
12 thank you.

13 THE COMMISSIONER: Yes. All right.
14 Thank you.

15 Mr. Shanahan?

16 CROSS-EXAMINATION BY MR. SHANAHAN:

17 Q. Dr. Rose, I act on behalf of
18 the Lombardo and Dawson families, and I am always the
19 man who is called last and is fighting a rearguard
20 action. I will try to be brief here.

21 If I could deal with them first in time.
22 The first child that actually enters the Hospital
23 who dies, the one that I am concerned with, is young
24 Amber Dawson, and I will just review here - I can
25 give you page and verse but we have all heard it and
I am sure you have read it.



1

2

A. Yes.

3

Q. Of Dr. Rowe's evidence of how

4

he summed up young Dawson.

5

An 11-month old child that goes into

6

the Hospital and has been in a number of hospitals

7

and essentially has what we might say are holes in

8

her heart.

9

A. Yes. They had been corrected,

10

though.

11

Q. Yes. All right. That is what

12

I was going to lead to. What he did conclude - at

13

one time he used the word that largely apart from

14

that large caveat of holes in the heart she was

15

normal, and I think he indicated in Volume 12 that

she was getting on well and she was in no imminent risk.

16

Would you accept that?

17

A. At what point in time?

18

Q. Now we are talking about the

19

last - her admission was I think July 23rd, 1980,

and she died five days later on July 28th, 1980.

20

A. You are referring to the time

21

of admission?

22

Q. I am. The 23rd to the 28th.

23

A. Yes.

24

Q. That she was in stable

25



1
2 condition. She was getting on well with no imminent
3 risk. All right.

4 Now as well I suggest to you, Dr. Rose,
5 that in contrast to some of the other infants that
6 we have heard about, Dawson was not admitted this
7 time on the basis of any singular dramatic incident.
8 I am thinking Hines here had an attack at home,
9 Pacsai had arrhythmia problems and was rushed in.

10 A. Yes.

11 Q. It appeared to me as I read
12 her record that the chief reason for her readmission
13 was simply that she was not getting on well; she was
14 not thriving as they say?

15 A. That is right.

16 Q. Right. And if you accept that,
17 I had pages marked that there were clearly many
18 doctors who had written down the reason for her
19 readmission was simply her failure to thrive.

20 A. Right.

21 Q. It appeared to me too, to sum
22 up Dawson, she had had operations, that your devices,
23 your echocardiograms and cardiac catheterizations
24 that would tell you her problems had been effective
25 and you had successfully analyzed those problems.

A. Yes.



1

2

3

4

Q. And, to jump ahead, it appeared to me that the techniques you had used, the operations that had been done, had been successful?

5

6

7

A. Yes, except there had been a major complication which was the paralysis of the right hemidiaphragm.

8

9

Q. All right. That has said in after the --

10

11

12

13

A. The second operation.

Q. -- I think the pulmonary artery was banded, and then when she was debanded and there were patches put over the hole that phrenic nerve paralysis had set in.

14

A. Right.

15

16

17

18

19

20

Q. Now if I can just briefly here -- one thing that struck me, looking at Dawson, was that her last few days were really marked in my mind here by persistent vomiting and a persistent drowsiness or lethargy. You may agree or not, but I think what I will do, to be eminently fair, I will take you through it.

21

I'm looking at her medical records which are Exhibit 69 --

22

23

THE COMMISSIONER: 59 I think.

24

25

MR. SHANAHAN: I am sorry, sir?



1

2

THE COMMISSIONER: 59.

3

MR. SHANAHAN: I thought Dawson was

4

69.

5

MS. CRONK: 59.

6

MR. SHANAHAN: Q. If I could direct

7

you, Dr. Rose, to page 79, and there is a nursing

8

note of July 24th four days before her death, and

9

it is under the heading of nutrition. It is about

10

seven lines from the top.

11

A. Yes.

12

Q. "Nutrition - Amber refused to

13

take more than 40 ccs at a feeding.

14

She had to be awakened to be fed. She

15

vomited once when I forced some milk."

16

Turning the page, page 80, coming down about mid-page

17

where the pen writing seems to darken, July 27th,

18

1980, and under Behaviour:

19

"Continues to be lethargic. Nutrition -

20

Dr. Reynolds notified re babe's poor

21

nutritional status and lethargy."

22

A. Yes.

23

Q. Page 85 at the top, the

24

nursing notes of July 25th, three days before her

25

death under "Behaviour" - above is nutrition and

it seems to be a long standing problem with



1
2 nutrition and trying to get her to up her calorie
3 intake.

4 "Behaviour - appeared drowsy. Slept
5 continuously between feeds."

6 And down at the bottom, the note of July 26th, 1980,
7 under Behaviour:

8 "Very lethargic all evening. Limbs
9 appear almost floppy at times."

10 And then finally on page 86, returning to the theme
11 of vomiting again, where the writing, the different
12 writing appears under the 27th of the 7th, 1980,
13 9:00 p.m.:

14 "Has been lethargic during the course
15 of the day. Not interested in feeds.
16 Has vomited twice."

17 A. Yes.

18 Q. Now, it struck me here that
19 Dawson's last few days were really punctuated by -
20 and I found many more but these were the ones I
21 highlighted here --

22 A. Yes.

23 Q. -- of this persistent vomiting
24 and drowsiness. Would you agree?

25 A. Not persistent vomiting. She
had intermittent vomiting, but drowsiness was



1
2 certainly a finding that was consistent.

3 Q. All right. Dawson - there is
4 some talk with Dawson of perhaps an operation to
5 try and correct the phrenic nerve paralysis.

6 A. Yes, to plicate the diaphragm.
7 This was the plan.

8 Q. All right. And before that
9 can be accomplished the young baby dies?

10 A. That is right.

11 Q. All right. How widespread
12 would the knowledge be amongst the nursing staff that
13 Dawson might be scheduled for an operation on the
phrenic nerve?

14 A. Oh, I think they knew about
15 this.

16 Q. Yes.

17 A. This was written on the chart.
18 It was noted.

19 Q. All right. So even though a
20 firm date may not be set for that operation it would
21 be knowledge that the doctors, the family and the
nursing staff would know?

22 A. Yes. The surgery had been
23 planned. The nurses are always informed of plans.

24 Q. All right. Now before that
25



1
2 she dies.

3 Dr. Rowe said that one of his concerns
4 after this child died, one of his feelings, his
5 immediate feelings, was that there was a problem
6 about the cause of death.

7 A. Right.

8 Q. He summed it up that he was
9 concerned that this child was - there was really no real
10 explanation for her rapid, her sudden deterioration
11 and her death?

12 A. Of her immediate cause of
13 death, yes.

14 Q. Yes. Dr. Reynolds was the
15 doctor I think that was there that evening, and on
16 page 55 of those charts you have in front of you I
17 think he picks up immediately - Dr. Reynolds completes
18 that death summary. I won't go through it all, but
19 at the end after going through the pros and the cons,
20 the pluses and minuses if you like of her condition,
21 he concludes at the end:

22 "It is unclear as to the full reasons
23 for this baby's death. An autopsy is
24 being performed."

25 A. Yes.

Q. Dr. Rowe agreed with that too.



1

2

A. Yes.

3

4

Q. Now at the time of death it was unclear as to why she died.

5

6

A. Yes, except we were very much aware that this child was one of those children who had multiple problems.

7

8

Q. Right.

9

10

11

12

A. Hypoxia, sepsis, we suspected sepsis. There were respiratory problems as a result of her diaphragm. Temperature instability. Child was low birth weight and was in a very poor nutritional state.

13

Q. Yes.

14

15

A. So I think the child had a number of problems, and in that situation anything can tip the balance.

16

17

Q. All right.

18

A. Such as aspiration.

19

20

21

22

23

24

25

Q. All right. And certainly as I look at her medical record there - I think they are the most voluminous of the charts we have had here - and yet, Doctor, I persist in bringing you back to the point that you had diagnosed her properly; she hadn't been as some of these later babies are, not a missed-SIDS, a missed diagnosis to be quite



1
2 clear, that in spite of all your techniques some of
3 your diagnoses are wrong. That is not the case with
4 Dawson, and you knew what Dawson had wrong.

5 It was the holes in the heart.

6 A. Yes.

7 Q. And your surgery was at least
8 from the mechanical and physical point of view
9 successful and it was the proper surgery to be done?

10 A. Correct.

11 Q. And in spite of the fact, as I
12 agree with you, that you have said and I think
13 Dr. Rowe used the same expression, that one event,
14 minor event, can sometimes tip the balance.

15 This young child as Mr. Lamek had said
16 had tottered through 11 months.

17 A. That is right.

18 Q. And then had died in five days.

19 A. I think tottered is the word.

20 Q. All right.

21 A. The reason the child came back
22 is that it wasn't progressing at all at the local
23 hospital and they were concerned.

24 Q. Now there is as well here
25 Dr. Cutz, starting at page 59 of the record you have
in front of you, his postmortem examination or his



1
2 postmortem report, and he picks up on those themes.

3 On page 63 under the examination of
4 the stomach he does pick up on the theme that
5 Dr. Rowe and yourself have indicated and that is on
6 the stomach he says:

7 "Sections through the area of perforation
8 shows hyalinization and thinning of
9 muscular coat. In areas adjacent to
10 the rupture, the blood vessels are
11 distended and then there is interstitial
12 hemorrhage."

13 Obviously then there had been a rupture of the
14 stomach?

15 A. Yes.

16 Q. All right. Now continuing
17 below, "Summary of Abnormal Findings":

18 "Autopsy showed that the surgical
19 repair of congenital heart defects has
20 been successful. Ventricular and
21 septal heart defects have been closed
22 and appeared intact. There was a
23 trivial deformity of the pulmonary
24 valve. Microscopic examination revealed
25 area of old myocardial fibrosis,
consistent with ischaemic changes.



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"Gastromalacia with perforation of the
cardia was a recent event most likely
precipitated by vomiting. There was
evidence of pulmonary collapse, but
no pneumonitis was found. The presence
of focal periventricular leukomalacia
is consistent with old ischaemic insult."



DM.jc
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He says:

"Cause of death. The immediate anatomical cause of death is not determined."

And then he gets more specific here on the next page, and it is a little long but I am going to read it here. He obviously has taken out the heart and looked at the heart of young Dawson and he says:

"The heart and the lungs are examined in block. There are moderate pericardial adhesions and some adhesions over the left lung. The heart appears mildly enlarged but the great vessels have a normal relationship, and the atrial appendages are also in the normal position and appear of normal size.

"The heart is opened in the routine fashion. The patent foramen ovale, or atrial septal defect was sutured closed and there is no evidence of an atrial communication. The superior and inferior vena cava and coronary sinus end at the right atrium in a



E.2

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"normal fashion. The right atrium appears of normal size and the tricuspid valve emits a No. 16 magar dilator. The right ventricle is mildly enlarged and this supports a normally positioned pulmonary artery. The posterior and septal leaflets of the tricuspid valve appear somewhat distorted by multiple teflon pledgets. The septal leaflet is slightly thickened. A small membranous ventricular septal defect has been closed with a Dacron patch and in addition, a small ventricular septal defect in the inlet portion has been closed with multiple pledgetted sutures. There is no residual ventricular septal defect."

That is, obviously the holes have been closed:

"The pulmonary valve is tricuspid, and appears trivially thickened, but this would certainly pose no hemodynamic burden. The site of the previous repaired pulmonary artery (at the site of the pulmonary artery band) shows no evidence of residual stenosis. The main



E.3

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"and branch pulmonary arteries are slightly dilated and appear of excellent calibre.

"The pulmonary venous return is to the left atrium and the left atrium and mitral valve appear entirely normal. Viewing the left ventricle, the ventricular septal defect have been completely closed. The papillary muscles appear normal and there is no evidence of mitral valve endocarditis. The aortic valve is tricuspid, with equal size cusps and there is no evidence of an infective process."

Now, you were concerned about sepsis here or some sort of infection and he certainly seems to meet that head on there, that he didn't appear to find any infective process going on in the heart muscle?

A. In the heart, yes.

Q. "The coronary arteries have normal origins and epicardial course. The aortic arch is left-sided with normal brachiocephalic vessels. There is no evidence of a ductus arteriosus or thoracic coarctation."



E.4

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And then his final impression is:

"(1) Post operative repair of separate membranous and inlet ventricular septal defects with excellent surgical result.

"(2) Trivial deformity of pulmonary valve with nodular thickening in the free valve margin probably secondary to previous pulmonary artery banding.

"(3) Previously repaired main pulmonary artery at site of banding, with an excellent surgical result.

"(4) Suture closure of patent foramen ovale."

Now, as a layman reading that, as you describe the heart, I was struck by how normal things had become with the surgical intervention that had taken place on young Dawson here. As a layman looking at the final impressions, and bearing in mind that his conclusion that he can find no anatomical cause for her death, it seems to me the surgery itself has all been well done?

A. Yes.

Q. And it has survived?

A. Yes.



E.5

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Q. Have you ever seen: first of all, Dr. Fowler had given us an article here with respect to, an article from 1964 when he had looked at some cases of children who had come into the Hospital with respect to digoxin intoxication, they had taken the pills of their grandmother, we will say.

A. Yes.

Q. And he concluded in that report, and it became Exhibit 174, he concluded at the summary, the symptoms that really persisted, the ones that really cut across all cases and were always he felt in evidence were "vomiting", and I am reading from page 198 of that:

"Vomiting, slow irregular pulse and drowsiness were prominent manifestations of poisoning."

These were the clinical symptoms that he observed.

I thought that Dawson, Dr. Rose, the irregular pulse was all over the place and I won't bother showing you that, but the drowsiness and vomiting were persistent themes there with Dawson as I look back.

A. Yes.

Q. Have you ever seen vomiting to



E.6

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2

such an extent in a child on the cardiac ward that
their stomach lining had been perforated?

4

A. I don't remember seeing a child
develop a perforation, on the cardiac ward, of the
stomach.

6

7

Q. So would you agree, it may be
quite obvious here, so would you agree that Dawson's
vomiting then in that last five days had really
become extraordinarily violent?

9

10

A. I don't think it was described
as violent, but she was debilitating and possibly
this just tipped the balance.

11

12

I think her vomiting and lethargy could
also be explained. Now, there was no endocarditis,
this is what we mean by, we did mention the infection
that is absent in the heart.

13

14

15

16

Q. Yes.

17

A. That meant there was no bacterial
endocarditis, but you can have sepsis occurring in a
debilitated child, generalized sepsis, producing
lethargy and producing vomiting, and I think that was
a thought that we had with the child that had
persistent vomiting, I believe she was treated with
antibodies.

18

19

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23

Q. I am sorry?

24

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G.7

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A. I think she was treated with antibodies, I am not sure.

Q. But you would agree, Doctor, that you had not seen vomiting of such a persistent and violent nature before that had caused this stomach rupture. You would agree as well that persistent vomiting is a symptom of many things, but it seems to have become a classic symptom too of digoxin intoxication?

A. Yes. We knew about this child's relatively low doses of digoxin, and a normal level, I mean an adequate level of digoxin in the blood, namely 1.9 nanograms which was on the 24th, if I recall.

Q. Dawson, in any event, was prescribed digoxin, Doctor, but Lombardo, moving along, was a child that was not prescribed digoxin?

A. Yes.

Q. And again, just to move quickly through, Lombardo comes in as a much younger infant, a number of days old, he comes in on the date of his birth, December 13th. It has tetralogy of Fallot and is operated on on December the 17th, is that correct?

Again, just - Lombardo, no difficulty, well, you do make an accurate diagnosis.



G.8

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2

The child is a fit candidate for surgery and within four days you moved in and it has the surgery and the surgery is successful?

4

5

A. No, it wasn't entirely successful.

6

The shunt that was created was considered to be small, her pulmonary arteries were very tiny and the type of shunt that Dr. Trusler had to create was obviously not very adequate.

9

10

As you can see from the notations of the Intensive Care Unit, I can't point you to the - but the child only had a systolic murmur where it was expected to have a good continuous murmur. So intravenous heparin was started, and the coagulation studies were done to test the effectiveness of the Heparin therapy, they do two tests, the prothrombin time and the partial thromboclastic time.

12

13

14

15

16

Q. Yes.

17

18

A. There had been some concern that they were not quite stable.

19

Q. Yes.

20

A. So the child obviously had not had a good result from surgery.

21

22

Q. Doctor, I am going to take you on, if you like, and at page 36 of the Lombardo notes, the Lombardo charts, and they are Exhibit 78. Now

23

24

25



G.9

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page 36 are handwritten notes about that operation?

3

A. Yes.

4

Q. Dated 17.12.80, OR for Operating

5

Room I take it?

6

A. Yes.

7

Q. Trusler et al it seems to be?

8

A. Yes.

9

Q. Trusler and others?

10

A. Yes.

11

Q. The operation is for tretalogy

of Fallot, TOF, and PS being?

12

A. Pulmonary stenosis.

13

Q. The operation is something about

a pulmonary artery window?

14

A. Aorta pulmonary artery window.

15

Q. All right. And it gives the

16

dimensions of that shunt?

17

A. Right.

18

Q. Immediately you have the PO2

19

going from 21, 22 up to 47?

20

A. Yes, immediately that was a good

result.

21

Q. All right, that was a good result.

22

He puts in the size, and I really can't make an awful

23

lot out of the rest, if you think it is significant

24

you might mention it.

25



G.10

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2

A. Yes.

3

Q. Then on page 75 of those notes

4

we have the typed up version of what another doctor

5

who was with Dr. Trusler wrote about the operation.

6

This is done by Dr. Painvin and it would probably be

7

done, it is dated 18.12.80, the next day or the next morning?

8

A. Yes.

9

Q. Do you have that, Dr. Rose?

10

A. Yes.

11

Q. You do?

12

A. Yes.

13

Q. And here it says, it tells what

14

the baby is in for, the clinical note, but I am not going to go through that:

15

"Operative procedure: The patient

16

was placed in the supine position, under

17

general anaesthesia, intubated, prepped

18

and draped. The sternum was opened.

19

The pericardium was opened also. The

20

size of the main P.A. was 4 mms. in

21

diameter. The size was too small to

22

work with a prosthetic graft as we had

23

expected to do."

24

All right, were you referring to that?

25



G.11

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2

A. No. They had planned to do what they called a Blalock shunt.

4

Q. Yes?

5

6

7

A. Which is a graft between the artery to the arm and the branch of the pulmonary artery, and they couldn't do that and that is why they did the more central shunt closer to the heart.

8

9

Q. Because you were talking about her problems earlier, and were you alluding to this?

10

11

A. Yes, I was referring to the operation that was actually done.

12

Q. All right, he continues here:

13

14

15

16

17

"So we decided to do a window between the ascending aorta and the P.A. We did it in the usual way, and the lumen of this window was 2.5 mms. We noticed an improvement in the systemic pO₂ rising from 27 to 47.

18

19

20

21

22

"Then the pericardium was closed and after careful hemostasis and inserting chest tubes in the anterior mediastinum and right to chest, the patient was closed in the usual manner.

23

24

25

"She was sent to the ICU in good hemodynamic status."



G.12

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And he concludes under Summary, that she underwent this operation without problem.

3

4

Then finally you have the transfer notes of Dr. Jedeikin on page 38. Again the note here on the 19th, that would be two days after the operation, he comes through here and he says:

5

6

7

"Heparin started ... "

8

about the third line of his notes in the darker ink:

9

10

"Heparin started 18.12.80 and the murmur only systolic. Stable in 40 per cent oxygen. PO2 in the 40's.

11

12

UO ... "

13

which would be urinary output?

14

A. Yes.

15

Q. Was "good":

16

"Colour pink, dusky when cries. No distress."

17

I am skipping the rest only because I can't really interpret it, and then it comes down:

18

19

"Child's colour and PO2 up so one must assume reasonable shunt function.

20

21

"Nutrition starting on full strength SMA ... ",

22

I guess SMA today is baby formula:

23

" ... SMA today. Awaiting today's ... "

24

25



G.13

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2

and I take it that is the prothrombin readings you
are talking about?

3

4

A. Yes.

(2)

5

Q. And:

"Candidate for transfer to ward."

6

7

I suggest to you that the cumulative effect of that
is that although there has been a slight change of
plans in the operation, that the child has had
successful surgery and has withstood the surgery well?

8

9

10

11

12

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19

A. I think if it had been entirely
adequate they would not have had to start the
Heparin, and the child should have had a continuous
murmur. So I think there was concern about the fact
that the murmur was not, the continuous murmur was
not heard and a concern that the child required
heparin for that reason. That the anastomosis, in
other words, the window, was not quite as adequate,
might close and this is why the heparin was needed
to keep it patent. I believe there was some discussion
also with the surgeons about revising this shunt.

20

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Q. Yes, that is in the notes I will
concede to that. In fairness, Dr. Rose, the Heparin
is given as a precaution, you don't hear the full
murmur you would like but the child is presenting
clinically, and we have heard the importance of that.



G.14

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Obviously on that last note by Dr. Jedeikin, the child is presenting clinically apart from the lack of the full murmur, it seems to be presenting fairly well, colour, nutrition, feeds eagerly?

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A. The colour in 40 per cent oxygen.

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Q. Yes.

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A. Not in room air.

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Q. All right. What I am suggesting

to you is that she moved from the ICU to the ward and that in itself is an indication?

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A. Well, I think that decision was made when Dr. Trusler was consulted and when he felt he could do nothing further, and that he hoped that the heparin would maintain the shunt.

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Q. All right.

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A. Because sometimes we go back and

ask the surgeons to revise the shunt if at all possible. If he feels he could not do this adequately he will say, well, I hope for the best but keep on with the heparin and then it can go either way.

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Q. This child was not on digoxin?

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A. No.

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Q. It is actually the first child in

our group, in this epidemic period that we are studying, that was not on digoxin?

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G.15

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A. Right.

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Q. Why was this child not on digoxin?

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A. The child did not require digoxin.

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There was no indication, the child did not have the type of cardiac problem that required digoxin.

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Q. Would I be fair in saying that the child was doing so well that it didn't require digoxin?

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A. No. I think this is the wrong impression. Digoxin is given for heart failure.

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Q. Yes.

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A. The child had no signs of heart failure. The shunt was small, if the shunt had been horrendous and very large the child might have exhibited signs of heart failure. There are some children who after a large communication is created develop some signs of heart failure, and those children do require digoxin. This child, there was no indication for digoxin.

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Q. All right. I have heard the expression used here sometimes that digoxin even in some people is contraindicated?

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A. Yes.

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Q. Would that be the case with Lombardo?

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A. I think so, yes. I think I would not administer digoxin.

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G.16

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Q And we have heard as a result of that those individuals are particularly, given their condition, are particularly sensitive, has been the word, to digoxin and its effects?

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A I wouldn't use "sensitive". I don't think it would have been harmful to give a child one maintenance dose of digoxin. I think if the child had been fully digitalized and treated as a child in heart failure, that I think would not have been appropriate.

11

12

Q Would not have been?

A Appropriate.

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Q Would she have reacted badly, is that what you are saying, to digoxin, or it may go unnoticed, a normal --

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A It might even go unnoticed.

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Q You don't seem to know?

A It depends if the child, I mean I know about the post mortem findings.

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Q Yes.

A Of digoxin in the tissues, but it has been going through my mind as to how the digoxin might have reached the tissues.

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Q Yes.

A And the only way I could explain



G.17

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it is the child might have been given a dose
inadvertently.

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THE WITNESS: Yes, I think if the
child ---

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THE COMMISSIONER: I just want the
distinction to be drawn. There may be some children
where it is not necessary and some children where,
and that I would have thought is what you were saying
about the Lombardo child, that it was not necessary
because the child was not suffering from heart
failure.

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THE WITNESS: That is correct.

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THE COMMISSIONER: But would you call
that contraindicated? I mean, doctors I have found
use language sometimes slightly different from the
way I would use it. I would say it simply was not
necessary, I wouldn't have said contraindicated,
because contraindicated to me would be that if any-
thing you try to extract the effects of digoxin from



G.18

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a child if it is contraindicated, that is it is the last thing in the world you want?

THE WITNESS: Yes, that is right. I think in a child with the diagnosis of Stephanie Lombardo of tetalogy of Fallot without a shunt, where the right side of the heart has to pump against an obstructive vessel into the lungs, if you increased the force of action of the heart by digoxin, that would be contraindicated, that would create more obstruction. This child had an open shunt, it was not adequate but it was open, so in this case it was not necessary. Sometimes these children, as I see, develop signs of failure and need digoxin. This child's shunt was not widely patent, so there was no need to give this child digoxin.

THE COMMISSIONER: So the majority in your ward would need it. A child like Cook definitely shouldn't have it?

THE WITNESS: I am sorry, I am not very familiar with Cook.

THE COMMISSIONER: I just mentioned Cook because that is what the term is that they used.

THE WITNESS: Yes.

THE COMMISSIONER: If you were, you used the expression with the Lombardo child that it was contraindicated.



G.19

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THE WITNESS: It was really contra-
indicated, maybe I should use that expression.

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THE COMMISSIONER: That is what concerns
me, because I would not have thought it was contra-
indicated. I would have thought it was just not
necessary.

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THE WITNESS: This is what I said to
begin with. I was trying to ---

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THE COMMISSIONER: No, I am trying to ---

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THE WITNESS: This child with one
maintenance dose of digoxin would have survived very
easily. I think if the child had been digitalized,
if digoxin was built up in the tissues to the levels
you usually require, it might have been a harmful
thing because the shunt was not very widely patent,
but as long as there is a shunt I don't think the
child would have come into, got into difficulties.

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THE COMMISSIONER: The reason I asked
about that was because when I heard the word "contra-
indicated" used with Cook I took it from that that
it was a different area and just not necessary. That
if Cook, and I know you don't know Cook ---

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THE WITNESS: Did Cook have surgery,
I don't remember?

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THE COMMISSIONER: If Cook got digoxin



G.20

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it would really send him into a spin?

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THE WITNESS: That is right. If the child had not had a shunt I think it would, yes.

4

5

THE COMMISSIONER: And that is what I thought contraindicated means?

6

THE WITNESS: Yes.

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THE COMMISSIONER: Was-by all means don't give this?

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THE WITNESS: Yes..

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11

MR. SHANAHAN: Q. It seems to me that Lombardo is in some sort of middle ground, that it certainly won't send her into a tailspin but at the same time it was not needed?

12

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14

A. Because a shunt had been created in this case.

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Q. Yes.

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A. I am not sure if Cook had had surgery.

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Q. All right. Now the last notes are ---

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THE COMMISSIONER: Really what we are putting to you is not so much a medical as a grammatical problem. What would you, if someone were to say to you that digoxin is contraindicated, what would it mean to you?

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G.21

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THE WITNESS: That you should not give
digoxin to this particular child in this particular
situation.

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THE COMMISSIONER: And do you think
that would apply to all children who should not have
digoxin?

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THE WITNESS: Yes.

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THE COMMISSIONER: Whether it would do them harm or whether it was just unnecessary. In any event, would you say that was contra-indicated?

THE WITNESS: Contra-indicated if it would do them harm like a child with tetralogy of Fallot.

THE COMMISSIONER: Yes.

THE WITNESS: Before surgery?

THE COMMISSIONER: Well, that's what I in my simple mind would have indicated, would have thought that was what contra-indicated meant, that if you don't, please do not give this child digoxin.

THE WITNESS: Right, yes.

THE COMMISSIONER: I don't know, there are some people that know so little about medicine, that is becoming demonstrated all the time, but there is some people, for instance, who take aspirins daily, they don't cause any harm but they probably don't do any good either.

THE WITNESS: Right.

THE COMMISSIONER: They have just got into the habit. There are some people with trouble with their stomach who shouldn't take aspirin at all.

THE WITNESS: Yes.



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THE COMMISSIONER: I would think the latter people are the ones that are contra-indicated, I wouldn't have thought the first one with the aspirin was contra-indicated.

THE WITNESS: Right.

THE COMMISSIONER: This sort of thing, it gives you some comfort, it doesn't do any medical good but go right ahead and do it.

THE WITNESS: No.

THE COMMISSIONER: Now, do you feel that distinction at all with respect to digoxin?

THE WITNESS: Yes, I think in this particular case a dose of digoxin given to this child, one dose, which might have produced the levels that had been found, shouldn't have caused it any harm.

THE COMMISSIONER: A child with tetralogy of Fallot before surgery, a dose of digoxin would do harm, even a therapeutic dose?

THE WITNESS: Yes.

THE COMMISSIONER: A small therapeutic dose would do harm, is that right?

THE WITNESS: One single dose I don't think would either but the build up the way we digitalize the child to build up, but one isolated dose given in error ---



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THE COMMISSIONER: What about in this instance with the Lombardo child, if you did give more than one dose?

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THE WITNESS: Oh, I think if you give a heavy dose that would certainly do the child harm.

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THE COMMISSIONER: Well, I'm not too sure if we've got any distinction.

9

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MR. SHANAHAN: Q. Just one last thing. A heavy dose before surgery to repair the tetralogy of Fallot ---

11

A. Would have been harmful.

12

Q. All right.

13

A. Certainly. It would be contra-indicated.

14

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Q. All right. And after the surgery?

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A. They quite often require, if it is a large shunt, require some digoxin if it is a small shunt, as long as the shunt is patent, one dose of digoxin would not do this child any harm.

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Q. This goes back to my original point there. If that shunt was patent and the child was not in heart failure and therefore not getting digoxin, is that not in itself and indicator that this child was doing reasonably well?



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A. Yes, but was not stable enough because based on the notes here that no murmur was heard or a short murmur, a systolic murmur only was heard, this was a worrisome finding in a child who has had a shunt. In other words, it indicates that this shunt may occlude and therefore we have to keep it patent with heparin .

Q. The shunt may occlude so you have to keep it patent with heparin but the child per se seems to be doing well and doesn't need digoxin?

A. Right.

Q. All right. Now, at page 40 and 41 sets out the last notes before this child goes into that sudden and rapid decline and terminal events. Page 40, the writing at the bottom there goes through many aspects, the vital signs, gives the temperature range, gives an apex range and makes the comment that it is regular and gives a respiratory rate and makes the comment that it is shallow and irregular, blood pressure, colour, pink and 40 per cent oxygen, no change in colour when out of oxygen, oxygen now discontinued.

That would seem to address the point that you mentioned earlier, this child could now be



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in room air?

A. Yes.

Q. All right. Incision. That would be obviously the incision left from the operation:

"Dry blood under steri-strips, middle of incision opened-no drainage noted."

I can't read - my far left hand column has gone but I can read to you what the other comments are:

"Air entry throughout, noisy upper lobes;
nutrition-taking formula well;
out-put voiding adequate amount;"

Talks about the heparin dosage, I think it says:

"ICC line cut down."

Do you read that?

A. I'm not sure where you are.

Q. I'm at the fourth last line,
ma'am.

A. Yes.

Q. Can you interpret that for me.

A. One . . . CC per hour and there is a quantity that is infusing.



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"Parents-both in today, held baby, fed baby, concerned, asked lots of questions and generally pleased with progress."

A. Yes.

Q. "generally pleased with progress" would seem to indicate to me either someone has told them that the child is doing well or, from a layman's point of view, they are looking at the child out of the mask and what have you and that the child appears to the layman to be doing well.

A. Yes.

Q. All right. And then coming to the next page ironically here the terminal events are put in really over the very last notes here. The terminal events at the end of that page are the last notes completed by the nurse from 1900 to 0330 hours.

"Patient relatively stable. Heparin infusing well. Patient feeding eagerly" and then gives the amounts:

"apex ..." it gives the figures "...and regular. Respiratory (figure) shallow but in no distress. Colour is pink-dusky when upset. Became restless after second feed, however settled well."



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And then from 3:30 onwards, you may
not have it in yours.

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A. Yes I have.

5

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Q. At 3:30 in we go to that set
of terminal events again and they are done in more
detail above that, the terminal events.

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A. Yes.

8

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Q. Now, again, Dr. Rowe indicated
that he felt that the onset of Lombardo's terminal
events were really sudden, rapid and unexpected?

11

A. Yes.

12

13

Q. All right. You were there at
the end?

14

15

A. No, I was there after the
baby expired.

16

17

Q. Well, I thought the middle of
that note there it said - I am sorry, you're right,
it says: "Dr. Rose informed".

18

Why didn't you call the Coroner?

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A. Well, I reviewed the chart,
I knew about the shunt and the concern about the
patency of the shunt and that this shunt may well
have occluded suddenly. I also want to point out to
you that the nurse's note at the bottom of page
41 was between 1900 hours and 3:30. So, I am wondering



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2 if the relative stability was noted at 1900 hours
3 and the nurse was busy elsewhere and came back at
4 3:30 to describe what had happened to the child.
5 So, there might have been a period which wasn't quite
6 so sudden. I think nobody knows, we cannot recall
7 this.

8 Q. All right.

9 A. I knew that there was concern
10 based on what was on the chart about this child's
11 shunt and a sudden occlusion would produce this
12 problem. Also at the time I knew the child was not
13 on digoxin, if I think now in retrospect why I was
14 not concerned about anything else except the child's
15 cardiac problem.

16 Q. All right. You thought that
17 there was an occlusion of shunt but then when the
18 parents refused to have an autopsy you were never
19 going to know what the cause of death was in this
20 child, isn't that right?

21 A. That's right.

22 Q. And yet you have mentioned
23 in other children that you certainly, if you wished
24 to circumvent that desire of a parent, that it was
25 perhaps a decision made in the wrong frame of mind,
that you could go to the Coroner and that would, if



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2 you like, do an end run about the parents?

3 A. Yes. If I had any concerns
4 about the anatomy. I mean, I knew what this child's
5 problem was.

6 Q. Yes.

7 A. The anatomy. I mean, I knew
8 what this child's problem was and what the anatomy
9 was and this was the likely cause of death.

10 Q. All right. But I am saying to
11 you that a child who had a problem, who had proceeded
12 from surgery to ward or, I'm sorry, ICU to ward, that
13 the surgery had been successful, more or less, you
14 had the problem with the murmur, you had it only
15 heparin and not digoxin, you had your last nursing
16 notes "stable, room air" and you have the sudden
17 decline and you have parents then refusing to give
18 you permission to do an autopsy which would satisfy
19 your curiosity if not your concern as to, did that
20 shunt occlude and they refused that. You could have
21 then notified the Coroner and that would have given
22 you the right to do that autopsy?

23 A. Well, I have given you the
24 reason why I didn't call the Coroner, namely, the
25 fact that I knew what the anatomy was, the child had
severe tetralogy of Fallot with tiny pulmonary arteries,



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a central shunt had to be created, there was concern that this was maybe not as wide as it should be and that could occlude at any time and I thought that this was the cause of the child's sudden death and for this reason I thought the anatomy was clear, we had done a catheterization, we knew what the child had, the surgeon had been in there and I felt -- and of course I wanted an autopsy, we always ask for an autopsy and I think we are usually successful but I wasn't going to press it knowing this child's problem.

12

Q. All right. Did you know that Lombardo had very high potassium readings?

13

14

A. At the time?

15

Q. Yes.

16

A. 7.4, not hemolyzed.

17

Q. Dr. Rowe at page 2557 of Volume 15 says that he thought that Lombardo had high potassium readings?

18

19

A. That's true, yes.

20

Q. All right.

21

A. I'm sure I wasn't aware of it at the time.

22

23

Q. All right. Were you aware that we have seen the same phenomenon at high potassium

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readings quite often accompanying high digoxin
readings?

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A. No, I didn't know that.

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Q. You don't know that. Now,
Doctor, you indicated with respect to Lombardo that
you thought there might be a sepsis problem. Did you
say that?

7

8

A. Lombardo, no.

9

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Q. No, all right, fair enough.

11

THE COMMISSIONER: Sepsis I think was
what your other client, Amber Dawson --

12

MR. SHANAHAN: Yes, I got them
crossed, sir.

13

14

Q. Have you heard of the Belanger
baby?

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A. Yes, but I wasn't at all --

16

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Q. If I was to tell you that in
Belanger prior to autopsy they thought the shunt had
occluded.

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A. Yes.

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Q. And that lo and behold after
autopsy Dr. Rowe conceded - I don't act for the
Belanger baby but he conceded to other Counsel that
in fact when they got in there and looked on autopsy
the shunt wasn't occluded at all.

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A. Well, I don't know on what basis this conclusion was reached prior to death.

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Q. All right.

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A. I cannot comment.

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Q. You will agree here that

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Lombardo, if we take an overview here of this, and this may be a theory that you don't espouse, is there is a person in there who is bad minded enough or perverse enough that they are tampering with these children and the medicines that they are to get, you will agree here that Lombardo is the first child that is not even supposed to be on any digoxin whatsoever?

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A. Yes.

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Q. Is that correct?

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A. Yes.

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Q. You will agree here that with

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your measures that were in force then, especially postmortem-wise, that in terms of your drug screening, it was commonly known that there was no testing done for digoxin in post mortem blood or tissue?

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A. No.

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Q. And in fact if the child wasn't supposed to be on it, like Lombardo, there was no testing done in their lifetime either?

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A. No.

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Q. So, looking and accepting my thesis here just for the sake of argument, Lombardo could really be the first child where this killer is compulsive enough or confident enough in the inadequacy of your system that they are prepared to strike out at a child here who is not even supposed to be on digoxin and take the risk that somebody may, in the lifetime or after their death, do a chance testing like we had much much later in Cook?

A. I don't agree with your term "inadequacy" of our system. What do you mean by that?

Q. Well, there is no screening. When you get much later into March and you've got the Estrella readings coming through finally.

A. Yes.

Q. You get here Costigan and other doctors starting to say that they want a sampling here to check things out.

A. Yes.

Q. But prior to that there has been no routine sampling.

A. No.

Q. In lifetime or in death with respect to drugs that the child may be on.

A. No. I mean, we wouldn't



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normally routinely do this.

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Q. No.

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A. And you cannot expect hospitals in general to do a drug screen when there is no reasons for doing a drug screen. You have to be suspicious. I mean, you have to have a premonition that something sinister is going on before you do this.

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Q. All right. As well as that too, if someone were to give a drug, administer a drug that was available on that ward that would mimic the symptoms, mimic the manner of terminal events that these children would die of, you will agree here that the drugs I have heard here, different diuretics and things of that nature, that digoxin is the one drug that would mimic the manner of death in heart failure in the other events?

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A. Yes.

18

Q. It would?

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A. Yes.

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Q. And you will agree here that when it comes down to March and when in fact this problem is detected that really a simple two-prong sort of attack takes place: You get rid of that nursing team and you put digoxin under control.



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2 Isn't that correct?

3 A. That's what happened, yes.

4 Q. All right. And therefore if
5 someone, as you put it, were suspicious enough at
6 the Lombardo event, or lucky enough or what have you,
7 to have taken that sample, even a minute reading
8 on Lombardo would have or should have twigged all of
9 you to a problem?

10 A. Oh, I am certain if somebody
11 had done a digoxin level and found it abnormal, but
12 there was no precedent.

13 Q. Not even abnormal ma'am. If
14 you found any in Lombardo. You might find some in
15 Estrella and others that they were supposed to have
16 but Lombardo was not supposed to have any and if you
17 found any in Lombardo you would have a problem?

18 A. Are you suggesting then that
19 drug levels, that you feel as a layman that drug levels
20 should be checked on all children who may be in the
21 hospital just in case they were given a drug that
22 they weren't supposed to have?

23 Q. I am suggesting that all known
24 drugs on that ward, that overdoses that you had the
25 facilities there with Dr. Ellis to quickly and
efficiently check for them and to get a reading on them,



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doesn't hindsight bear out that that should have been done?

A. I mean, in hindsight, yes, but I really don't see what point you're trying to make because we would have had to have done this on all children who were not receiving digoxin.

Q. All right. Finally then the last thing that interests me is this conference that is coming. This conference is in November on digoxin, is that right?

A. Yes.

Q. All right. And whose idea was it to, contemporaneous with this Commission, that one of the participants in this Commission here would run a digoxin symposium. Do you know who was the instigator of this?

A. I think those symposia are usually organized by the Research Institute at the Hospital for Sick Children.

Q. And are you saying then that the Sick Children's organized one for November?

A. The Research Institute I believe is the institute that is putting this on.

Q. Research Institute. Are they affiliated with Sick Children?



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A. Yes.

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Q. They are. And did you know

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who made the decision about this timing and that
this hospital would entertain or host it here in

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Toronto while this Commission would go on?

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A. I don't know who was the

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actual person.

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MR. ROLAND: Just to clear that up,

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Mr. Commissioner. I mean, there is some suggestion

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that the hospital is doing something improper. My

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friend makes the veiled suggestion there is something

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improper about this. This isn't an open conference,

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this is a workshop sort of forum for doctors, for

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experts to come together in a scientific fashion as

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they do all the time, to deal with an important

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scientific issue. It is in no way intended to affect

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the process of this hearing and in fact it is a closed

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session.
THE COMMISSIONER: I am sorry to hear
that.

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MR. ROLAND: And no one here has been

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invited to it.

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THE COMMISSIONER: I am sorry to hear

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that.

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MR. ROLAND: It is a closed session

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amongst doctors. So, to say that it is in some sense intended to effect the working of this Commission of Inquiry seems to be an improper suggestion.

MR. SHANAHAN: I'm not saying it's improper, Mr. Commissioner, I am saying it's late.

THE COMMISSIONER: Yes.

MR. ROLAND: Well, my friend I take it would prefer it not to happen at all?

MR. SHANAHAN: I would have preferred it to have happened a year ago.

THE COMMISSIONER: Well, I think it's time for lunch. How long do you expect to be after you have recovered your temper.

MS. CRONK: It will take me a long time.

MR. ROLAND: Very short.

THE COMMISSIONER: Very short?

MR. ROLAND: Yes.

THE COMMISSIONER: Mr. Ortved?

MR. ORTVED: Five minutes, Mr. Commissioner.

THE COMMISSIONER: So, that gives you the time. You don't need to tell us how long you will be but you are in charge of the next witness.



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MS. CRONK: Yes, thank you.

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THE COMMISSIONER: Yes, all right,

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thank you. Until 2:30.

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---Luncheon recess.

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2 ---Upon resuming at 2:30 p.m.

3 THE COMMISSIONER: Miss Thomson,
4 are you taking the...?

5 MS. THOMSON: Yes.

6 THE COMMISSIONER: All right. Thank
7 you.

8 RE-EXAMINATION BY MS. THOMSON:

9 Q. Dr. Rose, I wonder if I could
10 just pick up on a point that was mentioned this
11 morning by Mr. Shanahan, and I would ask you to
12 look at the Dawson chart, the Dawson record.

13 If we look at page 79 of that record
14 we see the long night nursing note for July 24th,
15 and you will note in that nursing note that there is
16 an indication that the baby vomited once, and then
17 if we go on --

18 THE COMMISSIONER: I am sorry, where
19 is that? Is that on page 79?

20 MS. THOMSON: Yes, Mr. Commissioner,
21 it is on page 79, the second entry. It reads July
22 24th LN nursing note on page 79.

23 THE COMMISSIONER: Yes, yes.

24 MS. THOMSON: Q. You will see in
25 the second line of that note is an indication that
the baby vomited once when I fed her some milk,



1
2 forced some milk.

3 If we go on to page 85, and if I may
4 I will simply summarize again these nursing notes.
5 There is an indication that the baby appeared --

6 THE COMMISSIONER: I'm sorry. What
7 page?

8 MS. THOMSON: Page 85.

9 Q. There is an indication that
10 the baby appeared drowsy, slept continuously between
11 feeds, and then again dealing with July 25th the
12 long night, there is an indication that the baby was
very sleepy.

13 Again on the 26th and this is page 85,
14 further down towards the bottom part of the page,
15 under Behaviour "Very lethargic all evening".

16 Dr. Rose, I would ask you from there
17 to look at page 95, and that page gives us the
drug assay.

18 It was taken on the 25th of July,
19 although we have no time indication, but there is a
20 listing of the drug assay on that baby, but the
21 level was 1.9.

22 Now, Dr. Rose, my simple question is
23 given the indications that we have of the baby
24 showing symptoms of vomiting, symptoms of drowsiness
25



1
2 and lethargy, do you feel, in light of that drug
3 assay of 1.9, that there is a connection between her
4 digoxin level and her clinical symptoms of that day?

5 A. No, I do not. I would also
6 point out the child is voiding quite well so that
7 there is no reason for her to be dig. toxic based on
8 that level.

9 Q. And I presume by your answer
10 that there is no suggestion that the level indicates
11 digoxin toxicity?

12 A. No, it does not.

13 Q. Although the clinical symptoms
14 as we have discussed would be consistent with it?

15 A. Yes.

16 Q. If I may I will just move on
17 to another point, Mr. Commissioner, and that is
18 with reference to yesterday's cross-examination by
19 Mr. Percival.

20 If I may, I would refer you,
21 Mr. Commissioner, - this is Volume 36 - pages 7214 to
22 7217, and in his cross-examination of you yesterday,
23 Dr. Rose, Mr. Percival listed to you seven babies.
24 Those were Cook, Miller, Pacsai, Estrella, Inwood,
25 Belanger and Hines.

He told you, based on Dr. Rowe's



1
2
3 evidence that these were babies in which Dr. Rowe
4 felt they might have been victims of digoxin
5 intoxication.

6 Now if those babies, if we are correct
7 in your testimony to this point, your only involvement
8 was with Baby Hines?

9 A. Yes, that is correct.

10 MR. YOUNG: Mr. Commissioner, I
11 thought that was corrected. I thought that --

12 THE COMMISSIONER: Yes, Lombardo was
13 added, added to the list.

14 MS. THOMSON: Yes, you are quite
15 right.

16 THE COMMISSIONER: And Dr. Rose
17 was involved with Lombardo.

18 MS. THOMSON: You are right.

19 Q. With respect then, to the
20 seven babies, and you did have some involvement
21 with Baby Lombardo, Mr. Percival asked you if you
22 would defer to Dr. Rowe's opinion about the children,
23 and I am talking about the six children excluding
24 Hines and Lombardo.

25 I think it is fair to say that based
on a reading of the transcript you had some
difficulty with that question.



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A. That is correct.

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Q. Was the basis of your

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difficulty perhaps Mr. Percival's language?

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A. Yes.

6

Q. In your mind do you understand

7

the verb "defer" to suggest the existence of two

8

independent opinions and that using the verb "defer"

9

one opinion would take precedence over the other?

10

A. Yes.

11

Q. Now with respect to those

12

six babies, that is excluding Lombardo and Hines,

13

is it fair to say that you have no opinion as to

the cause of death?

14

A. Yes --

15

Q. All right, I am sorry, that

16

you have no opinion as to the role of digoxin

toxicity?

17

A. Yes.

18

Q. With those babies? So that

19

if Mr. Percival had asked you are you in a position

20

to agree or disagree with Dr. Rowe's suggestion

21

that those babies might have been the victims of

22

digoxin toxicity, what would your answer have been

then?

23

A. I could not answer this

24

25



1
2 question on the basis of the six babies about whom I
3 had no opinion.

4 MS. THOMSON: Thank you. Those are
5 all my questions, Mr. Commissioner.

6 THE COMMISSIONER: Yes. I was not
7 as alarmed by that passage obviously as you were.

8 I think you have certain mild faith
9 in Dr. Rowe's opinion, have you not, even if you
10 know nothing about it yourself, you wouldn't say
11 he is necessarily wrong?

12 THE WITNESS: Absolutely.

13 THE COMMISSIONER: You would be more
14 inclined to think he is right than wrong?

15 THE WITNESS: Yes, that is right.

16 THE COMMISSIONER: If you know nothing
17 about it?

18 THE WITNESS: Yes.

19 THE COMMISSIONER: I think that is
20 all that she was saying.

21 MS. THOMSON: Mr. Commissioner, I
22 think our only concern was with the use of the word
23 "deferring to Dr. Rowe" in an area in which she had
24 no opinion.

25 THE COMMISSIONER: What do you think
"defer" means?



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MS. THOMSON: Well, I think as I understand it the existence of two separate opinions.

THE COMMISSIONER: You mean her opinion, but she will cast it aside?

MS. THOMSON: Indeed, Mr. Commissioner.

THE COMMISSIONER: Oh, I see.

Well, if that is what it means, but I don't think it necessarily means that. However, that is fine. Thank you.

Mr. Ortved?

MR. ORTVED: I am going to be very brief, Mr. Commissioner.

RE-EXAMINATION BY MR. ORTVED:

Q. Dr. Rose, I just want to ask you one or two questions concerning questions that were asked of you concerning Baby Hines, and I don't mean in relation to the part that Sudden Infant Death Syndrome played but the reporting of Hines.

Firstly, dealing with your experience, going back to the period prior to 1981, March of 1981 at the Hospital for Sick Children, when a case was made, a coroner's case, what did that entail insofar as the attending clinician was concerned?

A. In the case of a child referred to the coroner, the autopsy was done for the coroner



1
2 and we would have no access to the information unless
3 it was especially requested for by us and released
4 by the coroner to us.

5 Q. As I understand the procedure
6 once a case is made a coroner's case the post mortem
7 was done and provided to the coroner? Correct?

8 A. Yes, that is correct.

9 Q. And only to the coroner?
10 Correct?

11 A. Yes.

12 Q. And in fact that has found
13 legislative sanction in the Coroner's Act; is that
14 correct?

15 A. Yes, that is correct.

16 Q. And in fact if there is to
17 be any --

18 THE COMMISSIONER: You are not only
19 asked about digoxin and other matters, you are now
20 asked legal questions as well.

21 THE WITNESS: Well --

22 THE COMMISSIONER: You really are
23 broadening your field of expertise?

24 THE WITNESS: Yes.

25 THE COMMISSIONER: Yes. All right.

MR. ORTVED: Q. Any information you



1
2 get concerning a coroner's case has to come to
3 you with the express approval of the coroner?

4 A. Yes.

5 Q. Is that correct?

6 A. Yes, I think so.

7 Q. And in terms of dealing with
8 the family, who looks after that aspect of things?

9 A. It is usually the coroner
10 who communicates with the family.

11 Q. Right. The coroner being the
12 one with the information; is that right?

13 A. Yes.

14 Q. Insofar as the Hines case
15 specifically is concerned the record discloses
16 clearly, Exhibit 150 in this case, that that was a
17 case you reported to the coroner on March 24th, 1981.
18 Does that accord with your understanding of the
19 matter?

20 A. Yes, this is what I understood
21 had happened.

22 Q. And it is my information that
23 the postmortem report in that case was delivered to
24 the coroner directly. Is that your understanding of
25 how events transpired?

A. Yes. This is what I would



1
2 have thought would have happened.

3 Q. And insofar as your enquiries
4 are concerned you say you asked initially and were
5 told that the microscopy was not complete in
6 relation to Baby Hines. Is that right?

7 A. That it would take time.

8 Q. All right. And then did you
9 make enquiries subsequently as to whether or not you
10 could be provided with that information?

11 A. Yes, within that time span
12 was the time when the events of March 21st or 24th
13 happened, and after that the charts and the data and
14 everything in connection with this baby was in the
15 hands of the coroner and the police department and
I had no access.

16 Q. All right. And did you indicate
17 you were given to understand that you wouldn't be
18 entitled to any information concerning that case?

19 A. Yes.

20 Q. You are not able to recall who
told you that?

21 A. No, I can't recall.

22 Q. And there was some suggestion
23 made yesterday that when in fact that Hospital record
24 was seized that there was a copy left with the
25



1
2 Medical Records Department. Do you know anything
3 about that?

4 A. No.

5 Q. One way or the other?

6 A. No. We were told we had no
7 access to any records.

8 Q. All right. If in fact it is
9 established subsequently that there was a copy of
10 the record in the Hospital, would you anticipate
11 that a copy of the postmortem report would be on
that Hospital record?

12 A. It might or might not have
13 been. Probably not unless the coroner had released
14 the autopsy data.

15 Q. All right. And were you
16 ever given any indication as to whether or when the
coroner did release that autopsy data?

17 A. No, but I presume it was
18 released by the time Dr. Bain made his report.

19 Q. All right.

20 A. He had access to the information.

21 Q. July of 1982?

22 A. Yes, that is right.

23 Q. And similarly, I take it from
24 your evidence yesterday that it is clear that the
25



1
2 family was in communication with and advised on an
3 ongoing basis by the coroner; is that correct?

4 A. Yes.

5 Q. And can you assist us as to
6 how you are aware of that information?

7 A. I became aware of it through
8 the media.

9 Q. Because they were on the media
10 indicating what the coroner told them about the
11 cause of death? Right? ,

12 A. Yes. Right.

13 Q. And that I take it was
14 consistent with what you would have anticipated would
15 have happened in relation to that case it being a
16 coroner's case?

17 A. Yes, that is correct.

18 Q. You went on to say yesterday
19 that you were upset about what you considered to be
20 less than the complete picture having been given to
21 the Hines; is that right?

22 A. Yes.

23 Q. Can you explain that?

24 A. Well, since I now know that
25 the child had autopsy findings which were consistent
with the possibility of Sudden Infant Death, I felt



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2 there should have been - that information should have
3 been available to the parents at the same time.

4 Q. At the same time as the
5 information concerning digoxin intoxication?

6 A. Yes.

7 Q. And do you also have any
8 views as to whether or not an opinion as to death
9 due to digoxin intoxication was a reliable one as
10 of 1982?

11 A. I don't think it was reliable.
12 I don't know how reliable it was, however, so I
13 cannot comment on that, but I can comment on the
14 reliability of the autopsy examination.

15 Q. All right.

16 A. I think it was reliable.

17 Q. All right. So your concern
18 is that the family was only given part of the story?

19 A. That is right. I would have
20 been happy to give the family the other part of the
21 story had I had access to it.

22 MR. TOBIAS: Well, with respect,
23 Mr. Commissioner, we don't know for a fact that the
24 family was only given part of the story because we
25 don't know what the coroner told the Hines. We only
know what Dr. Rose assumes the coroner told the Hines



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2 from media reports. And no disrespect to the media.
3 I think that that is sometimes a tenuous ground on
4 which to base information.

5 THE COMMISSIONER: No, I'm certainly
6 not going to make any assumption as to what the
7 Hines were told or weren't told. This is
8 quadruple hearsay that we are now hearing.

9 MR. TOBIAS: Yes.

10 THE COMMISSIONER: But all what this
11 evidence really is is that we seem to be now concerned
12 with everybody's motives for doing everything at a
13 given time, and that is why she was concerned at the
14 time because she was in the belief at the time that
15 your clients were given only part of the story. That
16 is all. That is all it is worth.

17 MR. TOBIAS: All right. As long as
18 it is clearly understood that it is not necessarily all
19 the information they received.

20 MR. ORTVED: No, I am not --

21 THE COMMISSIONER: I was brought up
22 on the hearsay rule too, so I understand it.

23 I pay a good deal of attention to
24 direct evidence, very little to hearsay, and when
25 it gets up to quadruple hearsay I pay practically
none. But it seems to be part of the rules of



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3 Commissions of Inquiry that you can give any kind of
4 evidence you like, but you don't mind if the
5 Commissioner pauses, drops his pencil when this
6 kind of evidence is coming out, that is all.

7 All right.

8 MR. ORTVED: And that is the only
9 purpose of that exercise was to explain Dr. Rose's
10 answer in terms of her --

11 THE COMMISSIONER: It really wasn't
12 necessary. I understood it.

13 MR. ORTVED: Thank you, Mr. Commissioner.

14 Q. The only other matter I want
15 to canvass is in terms of Mr. Shanahan's suggestion
16 to you that drug screen should perhaps be run on
17 all drugs utilized in the Hospital for every child
18 that dies.

19 Can you maybe advise the Commissioner
20 as to the practicability of that suggestion?

21 A. A very unreasonable suggestion.
22 I cannot imagine how that could possibly be done.

23 Just the volume of blood that you have
24 to take for a drug screen, you would have to bleed
25 these children constantly in order to do drug levels.
I think it is a very unreasonable suggestion I think
in retrospect. Certainly it would have been nice



1
2 to have a level drawn in Baby Lombardo but at the
3 time we had no reason to do so.

4 MR. ORTVED: Thank you. Those are
5 my questions.

6 THE COMMISSIONER: All right. Thank
7 you.

8 Miss Cronk?

9 MS. CRONK: Thank you, sir.

10 RE-EXAMINATION BY MS. CRONK:

11 Q. Dr. Rose, almost complete, and
12 I promise I will be brief.

13 Mr. Commissioner, just a housekeeping
14 matter: my friend Mr. Ortved has referred to the
15 coroner's statement with respect to Jordan Hines.
16 I may be in error but it had been my understanding
17 that that was not filed as part of Exhibit 150.
18 Indeed unless my copy of that exhibit was abbreviated
19 in some way. I checked that over the noon hour and
20 made copies in order that it could be marked today.

21 Perhaps the Registrar could just help
22 us?

23 THE COMMISSIONER: Are you saying
24 the coroner's certificate was not --

25 MS. CRONK: You will recall, sir,
that when Exhibit 150 was marked there were a number



1
2 of coroners' investigative statements that were marked
3 in respect of children that we then understood - in
4 respect of deaths that we then understood to have
5 been reported by the Hospital to the coroner's offices.
6 And there was subsequently a later edition, and that
7 was Laura Woodcock's.

8 THE COMMISSIONER: That is right. Did
9 you say that Jordan Hines --

10 MS. CRONK: That is my understanding,
11 sir, that Jordan Hines was not amongst them.

12 THE COMMISSIONER: Was not one of
13 these? All right.

14 MS. CRONK: If that is correct,
15 sir, I just wondered --

16 THE COMMISSIONER: I think it is
17 correct.

18 MS. CRONK: All right.

19 THE COMMISSIONER: It is certainly
20 correct on mine. But what is the answer?

21 MS. CRONK: My suggestion is that it
22 now be marked.

23 MR. ORTVED: I guess I saw it yester-
24 day and I guess - Mr. Hunt provided me yesterday when
25 I was looking at 150. I just thought it was one of
them.



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THE COMMISSIONER: Yes. Are you going to distribute anything further? I don't understand what is the problem. Is there a coroner's certificate?

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MS. CRONK: There is, sir, and I am about to propose that it be marked subject to approval ultimately by Dr. Tepperman.

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THE COMMISSIONER: Yes.

MS. CRONK: I just wanted the record to be clear about what you had.

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THE COMMISSIONER: All right. Can we not make it part of Exhibit 150 too?

MS. CRONK: That would be fine.

THE COMMISSIONER: All right. We will add that to Exhibit 150, coroner's certificate in the case of Jordan Hines.

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---EXHIBIT NO. 150: Addition to Exhibit 150 -
Coroner's Certificate re
Jordan Hines.

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MS. CRONK: Thank you, sir.

Q. Dr. Rose, just following up on a number of questions that Mr. Ortved just put to you with respect to the ability of clinicians like yourself in respect of Jordan Hines to obtain access to information concerning either his postmortem



1
2 results or his medical records generally after the
3 child died, can you help me after the gross autopsy
4 which we know you observed or at least you saw the
5 heart at gross autopsy, did you make any enquiry
6 of the Pathology Department internal to the Hosiptal
7 as to whether or not a copy of the preliminary autopsy
8 report was retained as a matter of routine practice
9 in the Pathology Department?

10 A. No. My enquiries concern just about
11 information, how I would be able to receive information
12 about the final autopsy results. I wasn't asking for
13 a report. I was just interested in the final
14 results, and I was told that everything is now - all
15 the information is now in the hands of the coroner
16 and the police department.

17 Q. Do you know, Doctor, or can you
18 help me as to whether or not the Pathology Department
19 as a matter of routine keeps a copy of the preliminary
20 autopsy reports and the final autopsy reports that
21 originate with the Hosiptal Pathology Department?

22 A. Yes --

23 Q. Quite apart from whom might
24 receive a copy?

25 A. Yes, they do unless they are
a coroner's case.



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Q. And if they are --

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A. If it is a coroner's case we have to have a special request in order to get this information.

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Q. All right, Doctor.

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THE COMMISSIONER: That wasn't quite the question. I thought the question was that you wanted to know whether the Pathology Department keeps a copy of that report.

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MS. CRONK: We will be hearing from Dr. Becker in due course but I think the only point of relevance with this witness, Mr. Commissioner, is whether or not she knew at that time that Jordan Hines died --

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THE WITNESS: Yes.

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MS. CRONK: As to whether or not those reports would routinely be available in the Pathology Department because a copy was automatically kept.

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THE WITNESS: Yes. I thought they would not be routinely available.

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MS. CRONK: Q. All right, thank you, Doctor.

With respect as well to the question of Jordan Hines and his death, you told me in chief



1
2 you may recall that you did not recall at that time
3 another death of an infant in the Hospital which had
4 been attributed to Sudden Infant Death Syndrome
5 leaving aside, of course, the case of Jordan Hines,
6 and then as I understood it in cross-examination by
7 Miss Symes you indicated indeed in a discussion with
8 the Commissioner that you thought there had been some.

9 Do you recall that evidence?

10 A. Yes. I think vaguely I do
11 recall that there could have been somebody, but I
12 couldn't put my finger on it for you.

13 Q. All right. Doctor, in respect
14 as well to the cross-examination conducted by Miss
15 Symes, as I understood it you indicated that most
16 deaths attributable in infants to SIDS in fact take
17 place at home. Is that correct?

18 A. Yes.

19 Q. And would I be correct,
20 Doctor - perhaps it is obvious - that that would
21 likely be the case because deaths of that kind in
22 the home occur under circumstances where monitoring
23 is not available of the kind that is obviously
24 available in hospitals?

25 A. Yes.

Q. All right. And in the case of



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Jordan Hines we know that a hospital with the degree of sophistication of your own had available to it, a number of what I call early detection devices.

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A. Yes.

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Q. Or techniques and the first of that would be a cardiac monitor.

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A. Yes.

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Q. And we know that Jordan Hines was on that.

11

A. Yes.

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Q. And the second would be an apnea monitor?

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A. Yes.

14

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Q. And we know that Jordan Hines was on that?

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A. Yes.

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Q. And in certain situations as well if a child, leaving aside Jordan Hines was in the Intensive Care Unit or the Neonatal Unit, in those circumstances I believe you indicated to Miss Symes that one on one nursing care is available?

21

A. Yes.

22

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Q. All right. So that there is a close degree of monitoring in an observation sense by individuals responsible for the medical care of



1
2 the patient that is available in the Hospital?

3 A. Yes.

4 Q. And notwithstanding that Jordan
5 Hines was on both a cardiac and an apnea monitor,
6 his cardiac arrest which resulted in resuscitation
7 efforts, he was not able to be resuscitated. Correct?

8 A. Yes.

9 MS. CRONK: Thank you, Doctor.

10 THE COMMISSIONER: It does mean,
11 Doctor, that if very few cases occur in the Hospital
12 and many cases occur at home, the probability is
13 that SIDS is preventable by constant care?

14 THE WITNESS: It might be.

15 THE COMMISSIONER: Well might --

16 MR. TOBIAS: Mr. Commissioner, I am
17 having a great deal of difficulty hearing both the
18 question and the answer.

19 THE COMMISSIONER: Well, as I say,
20 that is always the trouble. I mumble when I am
21 not sure what I am talking about, but if it is a
22 fact that SIDS is a home disease or a home fatality
23 generally speaking --

24 THE WITNESS: Yes.

25 THE COMMISSIONER: -- then it follows
that the very fact that a child is in hospital, does



1
2 not suffer - does not die from SIDS; it means that
3 constant care would prevent SIDS from taking place?

4 THE WITNESS: Yes. This is why we
5 institute the apnea monitor.

6 THE COMMISSIONER: Yes.

7 THE WITNESS: So that we could
8 resuscitate the child very promptly.

9 THE COMMISSIONER: Well, does it
10 concern you at all that the allegation is that the
11 Hines child died of SIDS in the Hospital? Does that
12 fact that he died in the Hospital of SIDS strike you
as odd?

13 THE WITNESS: It doesn't strike -
14 the child had had a respiratory infection that might
15 have tipped the balance as I said, but all this --

16 THE COMMISSIONER: You see, all I am
17 trying to say is I don't know, and you are not an
expert on SIDS.

18 THE WITNESS: No.

19 THE COMMISSIONER: But you are a
20 great deal more knowing and knowledgeable than I am,
21 but does it not seem it is unlikely for a child to
22 die of SIDS in a hospital?

23 THE WITNESS: Yes, it is less likely
24 than it is at home.
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MS. CRONK: Well, if I can assist,
Mr. Commissioner, because obviously that is obviously
the thought from my perspective as well.



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Q. I take it, Doctor, you said it would be less likely for a child to die in a hospital setting than it would be at home?

A. Of course.

Q. That is because we know that most of these deaths in fact are home oriented, that is where they occur?

A. Yes.

Q. And indeed the purpose of an apnea monitor and a cardiac monitor is to detect as early as possible any heart rhythm irregularities, or any apneic spells that might be affecting a particular infant?

A. Yes.

Q. My point to you, Doctor, is simply this. In recognition of your evidence, and I am not suggesting that deaths attributable to SIDS do not occur in hospitals, but I am suggesting to you that it is unusual when they do?

A. Yes.

Q. And fairly, Doctor, as a consequence of that, there has been concern I would take it in the medical community, to determine what steps can be taken to determine whether or not death by that cause is in fact preventable?



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A. Yes.

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Q. That would include the introduction

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of both hardware in the form of monitoring systems to

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attempt to detect at an early and correctable stage,

6

if I can put it that way, the kind of spell that might

7

lead to death by SIDS?

8

A. Yes.

9

Q. And that would as well in terms

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of administrative policies within a sophisticated

11

hospital extend to arrangements designed to provide

more, and additional, or closer nursing care or

12

observation?

13

A. Yes.

14

Q. Thank you, Doctor. With respect

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as well to this question of SIDS, you told me in your

16

evidence in chief that you were unable to express an

17

opinion as you saw it as to whether or not SIDS

18

deaths in neonates were properly to be considered as

unusual.

19

As I understood your cross-examination

20

in response to Ms. Symes, you indicated once again

21

that SIDS deaths do occur, you believe, with neonates,

22

do I have that correctly?

23

A. Yes.

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Q. Doctor, as I understood it, you

25



BB.3

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told Mr. Tobias this morning that you were as well familiar with Exhibit 180, which you may recall was an article published this year, in April of 1983, in the British Medical Journal?

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A. Yes.

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Q. I would like you to refer to it very briefly if you would, Doctor. Doctor, if you would, could you turn with me to the second page of the article itself, Table 3, which you may recall was drawn to your attention earlier this morning by Mr. Tobias?

12

A. Yes.

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Q. As I read this chart, Doctor, 29 infants were observed in the method of recording and monitoring that is set out in the article, and the results in terms of the age of the children that were observed, and their age at death is set out in Table 3, is that correct?

18

A. Yes.

19

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Q. Now, again as I read the figures, looking at the age of death category, which is the fourth category over, with only two exceptions of all those 29 children, none were in the neonate category with the exception of two, is that correct?

23

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A. That is right.



BB.4

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THE COMMISSIONER: I am sorry ---

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MS. CRONK: Of the 29 children, Mr.

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Commissioner.

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THE COMMISSIONER: Weeks and days?

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THE WITNESS: Weeks and days.

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MS. CRONK: So reading the first one,

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Mr. Commissioner, if I am reading it correctly, it
would be 15 weeks, 108 days.

9

THE COMMISSIONER: Yes, that's right.

10

MS. CRONK: Q. And if we look then,

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Doctor, to the two who appear to have been under one
month of age, which I am considering to be neonates,

12

that would be Case No. 24 and Case No. 28, and in

13

both of those cases those children were marginally

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under one month of age, they were 3 months and 27 days
old?

15

16

A. Yes.

17

Q. And in both of those cases,

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Doctor, again both of those infants are stated in

19

column 1 to have been small for their - small in

20

weight at the time of their birth, they had a low

21

birth weight, correct?

22

A. Yes.

23

Q. And we know of course Jordan Hines

24

who was approximately 3 months of age, I am sorry,

25

25



BB.5

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3 weeks of age at the time of his death, weighed 8
pounds 2 ounces?

3

4

A. Correct.

5

Q. Thank you, Doctor.

6

Doctor, you will recall as well in
cross-examination with Mr. Tobias this morning, that
you confirmed what I had understood your evidence in
chief to be yesterday, that in an effort to obtain
the results from the microscopic examinations on the
body of Jordan Hines that had been conducted, you
contacted the pathologist in the Hospital and were
told that it would be about three or four weeks
before the results of the study of the microscopic
slides were available.

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A. I knew this actually from previous
experience.

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Q. In addition to any prior
experience which you might have had, I took it that
in the case of Jordan Hines you did specifically make
the inquiry and that was the response you received?

20

A. Yes.

21

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Q. And as I understood your evidence
yesterday, you told me you contacted Dr. Wilson, who
was the pathologist that had some connection with
the cardiology wards?



BB.6

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A. I thought it was Dr. Wilson, I
am not entirely sure.

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Q. Well fairly, Doctor, just so the
record is clear, and I may be mistaken in this, it is
my understanding that Dr. Wilson is the cardio-
pathologist who commenced employment at The Hospital
for Sick Children in July of 1981, some months after
the death of Jordan Hines. Do you know, are there
two pathologists in the Pathology Department by the
name of Dr. Wilson?

11

12

13

14

A. No, but I knew Dr. Wilson well
because I had done some work with him, he was at the
General at the time. I asked him in a general way
how long it would take to get the pathology.

15

16

Q. I am sorry, are you now saying
you raised the inquiry with Dr. Wilson at a time
when he was at another hospital?

17

18

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22

A. I don't think you quite understand.
I know Dr. Wilson well because we were engaged in some
work together. I asked him how long it takes in
general, not because he was working at Sick Children's,
on a general basis, how long it would take for
microscopy to be available and he had worked at The
Hospital for Sick Children before as a resident.

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Q. Apart from your discussions then



BB.7

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with Dr. Wilson, who was not then employed at The Hospital for Sick Children, do you recall having inquired directly in the Pathology Department, or any pathologist at your own Hospital, was to when those results might be available?

7

A. Yes, I asked at the time I looked at the heart how long it would take.

8

9

Q. That is at the time of the gross autopsy?

10

A. Yes.

11

12

Q. And after that, did you have occasion to make any further inquiries?

13

A. No, because I knew precisely that I would get no information.

14

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19

Q. Doctor, you recall during the cross-examination conducted by Mr. Labow this morning, your attention was drawn to the case of Barbara Gionas. I tell you frankly that it had been my understanding that Dr. Olley had been on call the night of her death, and it is clear that I am in error?

20

A. Yes.

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Q. Having regard to the fact that you have testified you were on call the night of her death, I would like to refer you to certain of the evidence of Dr. Rowe with respect to that child's



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death and ask you whether or not you are in a position to agree or disagree, or offer us an opinion.

Dr. Rowe testified, this is found in Volume 18, Mr. Commissioner, page 3155, that the terminal events experienced by that child, their onset and course, were in his view consistent with the child's clinical and anatomical condition.

Based on your knowledge of the child's condition and her terminal events, do you agree or disagree with that statement?

A. I agree.

Q. Dr. Rowe further testified, found at the same page, Mr. Commissioner, that to the extent that the terminal events did include bradycardia; did include in his view some presumed interference with the operation of her conduction system; and did include junctional rhythm, that the changes, that those terminal events in his view were also consistent with digoxin intoxication. Do you agree with that statement?

A. Yes.

Q. And finally, Doctor, Dr. Rowe testified with respect to what he believed to be the cause of death of this child, that at the time that the child in fact died he was of the view that her



BB.9

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2 direct death was directly attributable to natural
3 causes, that it had been caused by congestive heart
4 failure and that he held that same view and held that
5 same opinion when he testified here before the
6 Commissioner. Do you share that conclusion with
7 respect to the cause of death of this child?

8 A. Yes.

9 Q. Doctor, your attention was drawn
10 as well to the question of digoxin toxicity having
11 been raised in the context of this child's death. We
12 heard this morning that was raised on March the 7th,
13 I believe it was by Dr. Schaffer, and you pointed out
14 in the course of your responses to Mr. Labow that
15 a digoxin level was in fact taken on March the 7th
16 and it resulted in a reading of 1.2 nanograms. Do I
17 have that correctly?

18 A. Yes, it was Dr. Kobayashi.

19 Q. Oh, I am sorry, thank you. The
20 level was 1.2?

21 A. Yes.

22 Q. And that was taken the day that
23 the question of digoxin toxicity appears to have been
24 raised by that doctor?

25 A. Yes.

Q. I take it a level of 1.2 wouldn't
cause you any concern, Doctor?



BB.10

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A. No.

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Q. Be it from a therapeutic point of view, or from a concern that something sinister may have been at work with respect to the child?

5

A. Yes.

6

Q. Thank you.

7

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Moving then to the concept of clustering that was raised with you by Mr. Roland.

9

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You will recall perhaps telling Mr. Roland during his questions of you that clustering in your view meant an unusual occurrence, and I believe these are your words:

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"Larger numbers of patients with either any type of cardiac defect or specific type of cardiac defects in a certain period of time."

16

Do I have that correctly?

17

A. Yes.

18

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Q. And you recall as well telling Mr. Strathy later in the day yesterday that it could in fact mean both, as you understood the context?

20

21

A. Yes.

22

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Q. You also told Mr. Roland, as I understood it, that you regarded the numbers in the summer of 1980 as a cluster, do you recall that?

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BB.11

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A. Yes.

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Q. I would like to be very clear as

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to what your evidence on this point is, Doctor. When

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you said you regarded the numbers in the summer of

6

1980 as a cluster, were you referring to the number

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of children who presented with serious congestive

8

heart failure characteristics, or were you referring

9

to the numbers of deaths that had occurred on the
wards?

10

A. I referred to the numbers of

11

children, the numbers of infants with serious or

12

critical cardiac defects.

13

Q. So when you were talking about

14

a cluster in the summer of 1980, you were talking

15

about the numbers of children presenting a particular
condition?

16

A. Yes.

17

Q. You were not addressing your mind

18

to the deaths that had occurred at that stage?

19

A. No.

20

Q. You shared, as I understood your

21

responses to Mr. Roland, you shared Dr. Rowe's, that

22

is Dr. Rowe's and Dr. Freedom's opinion that in the

23

summer of 1980 there was being experienced in the

24

cardiology wards a concentration of very young and

25

sick children?



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A. Yes.

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Q. And do you recall during the course of questions put to you by Mr. Strathy, being asked as to whether or not you had in your own mind arrived at an understanding as to why that was happening, why there was a concentration of younger and sicker babies than you had previously seen? Do you recall being asked that?

9

10

A. I recall being asked that, I don't know what my answer was.

11

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Q. Well, to help you to refresh your memory on that, Doctor, your response to the question put to you by Mr. Strathy referred to three things:

First, it referred to the question of referrals from Winnipeg.

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16

A. Right.

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Q. Infants referred to the cardiology wards from Winnipeg. As I understood your evidence you were aware of the fact that of the deaths which occurred during the entire period from July of 1980 through to March of 1981, on the cardiac wards, only one child seems to have been referred from Winnipeg?

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A. On the cardiac ward.

Q. And that was Real Gosselin?

A. Yes.



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Q. With which you had some involvement?

A. Yes.

Q. That is one then of the 36 deaths if we include Kevin Pacsai and Laura Woodcock that the Commissioner has heard occurred directly on the wards during that time frame?

A. One of the deaths, but there were other sick babies that survived from Winnipeg.

Q. But of the deaths that occurred she was the only one?

A. Yes.

Q. I am sorry, he was the only one?

A. Yes.

Q. And the second factor to which as I understood you drew Mr. Strathy's attention, was the question of the commencement of operations of the transport helicopter at the hospital?

A. Yes.

Q. I believe you indicated you were not certain as to when the transport helicopter in fact began its operations?

A. Yes.

Q. Do you recall that?

A. I don't recall that.



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Q. Am I correct, Doctor, in my understanding, that the purpose of the introduction of the helicopter service at the Hospital was to facilitate the bringing of emergency patients to the Hospital?

A. Yes.

Q. Am I correct further --

THE COMMISSIONER: Sorry, do I understand this was to bring emergency patients to all the hospitals?

MS. CRONK: That was my next question, Mr. Commissioner.

THE COMMISSIONER: Oh, I am sorry.

MS. CRONK: No, that is quite all right, sir, I am grateful to you.

Q. Am I correct, Dr. Rose, in my further understanding that the helicopter service in fact services a number of hospitals in addition to The Hospital for Sick Children?

A. Yes, that is correct.

Q. Am I correct as well that of the emergency cases that would be brought to The Hospital for Sick Children, and let's assume that they are young and sick patients, that those could be patients with any number of problems, some would be admitted



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depending on their condition to the ICU, some to the neonatal wards, some perhaps to the cardiology wards, but indeed it could be to any ward in the Hospital depending on the nature of their problem and their condition?

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A. Yes, because they come by helicopter means that they are ill so it would be usually the neonatal ward, the cardiac ward or the Intensive Care.

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11

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Q. Well that assumes, Doctor, does it not, the nature of the problem is related to the heart, as I understand it?

13

14

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A. Not necessarily, the child could be very sick from having a bad accident and be admitted to Intensive Care.

16

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Q. Precisely my point. There is no suggestion that the helicopter transport service was restricted to cardiac patients?

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A. No, that is correct.

Q. And the third and final suggestion --

THE COMMISSIONER: Before we leave that, does anyone else want to give any evidence, do you have some information as to when this helicopter service started?

MS. CRONK: No, I am hoping someone can



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provide it to us, Mr. Commissioner, I am not certain as to when it commenced, although you will recall that we have asked a number of witnesses about that, but in due course I suspect we will get that.

THE COMMISSIONER: It strikes me as something we won't have that much difficulty in finding out.

MS. CRONK: Q. The third suggestion, as I understood it, Dr. Rose, which you referred to Mr. Strathy, was the suggestion that with the move towards 4A/4B from Ward 5A, which occurred at the beginning of April 1980, there had been an increase in the number of infant beds available on the cardiology wards?

A. Yes.

Q. Do you recall drawing that factor to his attention as well?

A. Yes.

Q. As I understand, Doctor, the increase in space that actually resulted from the transition towards 4A/4B that was in fact an addition of some four infant beds, do I have that correctly?

A. I am not sure. If that information was given to you by someone from the Hospital it must be correct.



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Q. You have no reason to disagree
with that?

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A. No.

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Q. Doctor, with respect, if that be
so, with respect to the addition of that additional
bed space, would you agree with me that that would
not necessarily result in infants who were sicker and
younger than you previously had seen being introduced
to those beds, but rather simply that there was more
space for infants whatever their condition on the
wards?

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A. Yes.

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Q. Thank you, Doctor. Now, other
than those three factors which are the factors which
you drew to the attention of Mr. Strathy. Sitting
here today, can you help us as to any other matter
which you felt might have accounted for what you
perceived to be a concentration of younger and sicker
children in the summer of 1980 on the cardiology
wards?

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A. No, I can't point to any
particular ---

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Q. Thank you, Doctor. You may recall
as well, Doctor, if I have it correctly, that during
the course of your discussion with Mr. Roland



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yesterday, you indicated that another cluster had
taken place, you thought in August of 1982, do you
recall that evidence?

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A. Yes.

6

Q. And then under questioning by
Mr. Strathy as I understood it, you indicated that
you recalled a meeting had been held with represen-
tatives of the Coroner's Office in August of 1982?

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A. Yes.

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Q. But it was possible having regard
to the, I am not even going to call it a bar chart,
sir, the diagram on the wall, that is here in
evidence, that the actual cluster might have occurred
at an earlier date.

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THE COMMISSIONER: What is the number
up there again?

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MS. CRONK: I am sorry, Exhibit 125,
Mr. Commissioner.

18

Q. Do you recall that, Doctor?

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A. The meeting we had was in August.

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Q. But the cluster you thought, in
response to Mr. Strathy, might have been at an earlier
time?

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A. Yes, the various minutes of that
meeting.

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Q. To help you with that, Doctor,
so that the record is clear. Mr. Commissioner, you
may recall that Exhibit 164 which had been introduced
in evidence, has been described by Mr. Scott as the
Minutes of that meeting that occurred in August of
1982.

I have had some discussions with Mr.
Roland with respect to the contents of these minutes,
because at the time of their introduction, sir,
obviously there were references to a number of
children who are not being reviewed by this Commission,
yet their names and certain data with respect to
their medical condition were contained in the Minutes.

Mr. Roland has requested Commission
counsel to request you, sir, to accept in lieu of
the exhibit which has already been marked as Exhibit
164, a version of the same document with the names
of the children simply blanked out. That presents
no difficulty either to Mr. Lamek or myself, and I
prepared, subject to your concurrence, further copies
of that exhibit with simply the names of the
children blanked out so there is no difficulty in
revealing facts concerning their medical conditions
at this stage.

THE COMMISSIONER: Has anyone any
objection to that?



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MR. STRATHY: I don't, I have the original document in my hand and I notice each of the children has a history number which is completely unintelligible to any one of us. Is there any way, I suppose there is, if for some reason at some future date we want to know particulars of any specific child I suppose we will be able to do that, I have no objection.

THE COMMISSIONER: We may have - I haven't appreciated this, but we may well have a legal problem. However, if no one has any objection for the moment certainly it becomes essential to go into one of these and mention the names we will do what we can, but we may have a legal problem.

MS. CRONK: May I ask you then, sir, to accept a second copy?

THE COMMISSIONER: I am quite preapred to accept it, what are you going to do about all these copies that are out?

MS. CRONK: The copies that have been distributed have been retrieved, sir, rather quickly I might add, and I am now prepared to provide another copy.

THE COMMISSIONER: Is there any objection from anybody?



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MS. CRONK: Mr. Roland tells me he didn't, sir, and I am in his hands in that regard. May I then provide to you, sir, a copy?

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THE COMMISSIONER: Yes, all right, and if you would like me to give up --

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MS. CRONK: No, sir, I am content you retain the one you have.

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THE COMMISSIONER: All right, we will substitute that for 164.

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MS. CRONK: Q. Dr. Rose, if I can direct your attention to these minutes. You will see in the first, well, it is not even a paragraph, but in the first section of the first page there is a recitation of the individuals who attended a meeting on Tuesday, September 7th, 1982, in the paediatric conference room. You are recorded as one of those persons who was in attendance at that meeting. Do you recall being at the meeting, Doctor?

18

A. Yes, I kept the minutes.

19

20

Q. Are these minutes then that we are looking at, were they prepared under your hand?

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Q. Doctor, if we look at the preamble section of the minutes directly following the list of those who were present, Dr. Carver is attributed



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as having indicated to those present that at Dr.
Phillips' request the meeting was called over an
increase in cardiac autopsies during the month of
August, 1982, to see if any unusual features could be
discovered. Was that the purpose of the meeting as
you recall it, Doctor?

A. Yes.



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Q. May I take it then, Doctor,

with the benefit of now having in front of you
the minutes from that meeting, that the meeting that
you were recalling took place first on September 7,
1982?

A. Yes.

Q. And that your recollection
as to when the cluster occurred was, in the first
instance correct, that is that it occurred in the
month of August 1982?

A. Yes.

Q. And the incident or the
phenomenon that was being addressed was the question
of what then appeared to be an increase in autopsies,
post mortems that were being conducted on cardiac
patients who had died that month?

A. Yes.

Q. Do I have that correct?

A. Yes.

Q. Doctor, on my review of
these minutes there appeared to be fourteen cases
that were specifically discussed at that meeting
and, by my count, Doctor, in respect of each of
those cases, all of those deaths in the majority,
with the exception of two, appeared to have occurred



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either in the Intensive Care Unit or in the neonatal ward?

A. That's correct.

Q. That's correct. And with the exception of the two, that is, Case No. 6, it is unclear from the minutes but it looks as if that death may have occurred in Ward 4A; that's Case No. 6 on page 2.

A. Yes, right.

Q. And similarly, the only other case where the death appears to have occurred on the cardiology wards is Case No. 12, and that child appears to have died on Ward 4B.

A. Yes.

Q. All right. So, we have then a situation, Doctor, where the incident that was being examined, that is an increase in cardiac autopsies related to cardiac patients that died primarily either in the Intensive Care Unit or in the neonatal wards; correct?

A. Correct.

Q. All right.

Dr. Rowe testified before this Commission, Dr. Rose, at Volume 27, page 4935 to 4936, and I'm going to read the passage to you



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directly:

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"Q. The ICU is one of the places
in the Hospital where one should
expect to see high death rates,
that is fair, is it not?"

"A. Yes."

"Q. The sickest patients and
post operative patients go there?"

"A. Yes."

"Q. And they go there from all
over the Hospital, not just from
the Cardiology Division?"

"A. That is right."

I take it, Doctor, that you would
agree with those observations made by Dr. Rowe?

A. Yes, I would.

Q. And I suggest to you,
Doctor, that with respect to the cluster which
appears to have occurred, to use your description of
it, in August of 1982, that that cluster in terms
of the deaths and the number of patients involved
appears to be very different than the grouping of
deaths with which this Commission is concerned for
a number of reasons: First, primarily the deaths
which occurred in August of 1982 were not on the



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2 cardiology wards, but rather the ICU and the neonatal
3 wards. Would you agree with me?

4 A. There is an explanation
5 for that because at that time, well, since the
6 happenings of March 1981 we found it much easier
7 or we have been transferring children more rapidly
8 from the cardiology ward when they got into diffi-
9 culty.

10 Q. Are you saying then,
11 Doctor, that since March of 1981 the difficulties
12 which we have heard in other evidence represented
13 by a constantly overcrowded or at least a very
14 busy Intensive Care Unit have been alleviated and
15 there is now a greater capacity to receive cardiac
16 patients?

17 A. Maybe not a greater
18 capacity but it has been easier to get the patients
19 transferred.

20 Q. All right.

21 And would that apply as well to
22 the neonatal wards, Doctor?

23 A. If the death occurred on
24 the neonatal ward I don't think that relates to that.
25 I think they occurred in the neonatal ward and
that's it.



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Q. All right.

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And in some of these cases, Doctor, then you are suggesting that the children were transferred directly from the cardiology ward to the Intensive Care Unit as opposed to going to the ICU from the operating room?

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A. That's right.

8

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Q. Do I understand you correctly?

10

A. Yes.

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15

Q. Doctor, I haven't done that calculation but, for example, if we look at Case No. 1 on the first page of the minutes we see that that child is described by you in preparing the minutes to have died post operatively in the ICU?

16

A. Yes.

17

18

Q. That is an OR to ICU transfer?

19

A. Yes.

20

21

22

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25

Q. All right. In the second case it is merely indicated that he was transferred to the ICU, there doesn't appear to be an indication as to whether or not the child had undergone surgery or whether he had been transferred from the



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ward.

THE COMMISSIONER: There is an indication that he wasn't. Was there not an operation for intestinal malrotation in July?

MS. CRONK: In July?

THE COMMISSIONER: Developed -- Oh, I see. He might have gone...

MS. CRONK: To the ward before going to the ICU, sir.

THE WITNESS: Yes, it did, arrested on 4B.

MR. ORTVED: There is a note on the margin saying "arrested in 4B".

THE WITNESS: Yes, transferred to ICU.

MS. CRONK: Oh, I see. Thank you, Mr. Ortved.

Q. And with respect to Case No. 3, Doctor, do you know now that child is expressed to have died in the neonatal ward. I take it that child would not have come from the cardiology ward?

A. No.

Q. All right.

Case No. 4 he was transferred to



CC7 2 the OR and from the OR to the ICU.

3 A. Yes.

4 Q. All right.

5 Case No. 5 again an admission to
6 the neonatal ward, not likely from the cardiology
7 wards.

8 A. Yes.

9 Q. Case No. 6, that was a
10 case where the child -- that was one of the two
11 cases you recall where the child died on the
12 cardiology wards?

13 A. Yes.

14 Q. Case No. 7, admitted
15 directly to the Intensive Care Unit from North York?

16 A. Yes.

17 Q. Case No. 8, again admitted
18 to the neonatal ward.

19 A. Yes.

20 Q. Case No. 9, again
21 admitted to the neonatal ward.

22 A. Yes.

23 Q. Case No. 10, again
24 admitted to the neonatal ward, then went to the OR
25 and from the OR to the ICU.

26 A. Yes.



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CC8

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Q. All right.

3

Case No. 11, again neonatal ward

4

7G.

5

A. Yes.

6

Q. Case No. 12, that's the

7

second case where a child appears to have died on
the ward, the cardiology wards?

8

A. Yes.

9

Q. Case No. 13, the child

10

was transferred from the ward to the ICU.

11

A. Yes.

12

Q. And then the final case

13

was admitted to the ICU but there is no indication
of whether in the first instance the child had been

14

on the cardiology wards.

15

Do I have that correctly?

16

A. Yes.

17

Q. All right.

18

I take it then, Doctor, you would

19

agree with me that in most of the cases recorded in
the minutes that children were either admitted to

20

the neonatal wards or were admitted post operatively
to the Intensive Care Unit and were not transferred

21

22

from the cardiology wards to the ICU?

23

A. Not many of them were.

24

25



CC9

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Q. Thank you.

3

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Would you agree with me further, Doctor, that the number of deaths reflected as having occurred and the post mortems undertaken in the month of August, 1982 do not compare in terms of numbers with the numbers of deaths that were experienced on the cardiology wards over the nine months with which we are concerned, or are you in a position to help us with that?

10

11

12

13

A. I don't think I could help you except to say that here we had a cluster of children, wherever they were located, with critically serious congenital heart disease.

14

15

16

17

Q. All right. And we don't know, Doctor, what the mortality rates were in the ICU and the neonatal wards for the months preceding that, I take it you can't help us with these figures?

18

19

20

A. No, I can't help you.

MR. ORTVED: They are part of the exhibit.

21

22

23

24

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MS. CRONK: Q. Well, apart from interpreting the chart that has been put in.

A. Oh, yes.

Q. Thank you.



1
CC10 2 Then finally, Doctor, you will
3 recall in your discussion this morning with Mr.
4 Shanahan concerning Stephanie Lombardo, you indicated,
5 and I don't think there is any issue over this, that
6 neither Stephanie Lombardo nor Jordan Hines were
7 prescribed digoxin while they were in The Hospital
8 for Sick Children?

8 A. That's correct.

9 Q. All right. And we know
10 that in both cases, both Stephanie Lombardo and
11 Jordan Hines, that based on the forensic testing that
12 was carried out, there was an indication that there
13 was digoxin present in the tissues of those children
14 on examination after death?

14 A. Yes.

15 Q. In both of those cases?

16 A. If there was digoxin, yes.

17 Q. And I recognize what you
18 said this morning about a digoxin-like substance
19 but there was a finding consistent with digoxin
20 or a digoxin-like substance in the tissues of both
21 of those children?

21 A. Yes.

22 Q. All right.

23 And you indicated as I understood
24
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your evidence this morning in your responses to Mr. Shanahan that in the case of Stephanie Lombardo you had been thinking about it, you were trying to think of how that child, who had never received and was never prescribed digoxin in the Hospital, could have ended up with digoxin in her tissues.

Do you recall that?

A. Yes.

Q. And I believe you suggested that the child could have received inadvertently a dose of digoxin intended for another patient.

Do you recall that?

A. Yes, this is the only way I would have explained it at the time.

Q. All right.

Now, Doctor, with respect to the suggestion of the inadvertent administration by error of another patient's dose of digoxin to Stephanie Lombardo, we have seen in at least one other case being addressed by this Commission that that happened, that a dose of digoxin intended for one child was in error given to another child.

To help you, Mr. Commissioner, my recollection is that that was Kristin Inwood.

We have seen as well, Doctor,



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that in that case there was a document called an Incident Report that was filed in respect of that accidental inadvertent administration of the drug.

A. Yes.

Q. Are you aware of any Incident Reports that were filed with respect to Stephanie Lombardo concerning the drug digoxin?

A. No.

Q. All right.

Would you agree with me, Doctor, that in the absence of the existence or the filing of an Incident Report there would appear to be four possibilities as to how that might happen: The first is, as you have suggested, the inadvertent administration of the drug, and I suggest the first possibility is that that happened inadvertently but the person who did so didn't know that they had.

A. Yes.

Q. That's the first possibility, right. That would explain why there was no Incident Report?

A. Right.

Q. The second possibility is, once again, the drug was administered inadvertently, the person knew that they had but they failed to file



1

CC13

2

a report?

3

A. Yes.

4

Q. That would explain again

5

both perhaps how the drug was there and secondly
why there was no Incident Report?

6

A. Right.

7

Q. Correct.

8

But I take it you would agree with

9

me, Doctor, if that were to occur on the cardiology

10

wards, that is someone accidentally administering

11

a drug, realizing that they had done so but failing

12

with intent to file an Incident Report, that would

13

be a matter of some concern to you?

A. Yes.

14

Q. All right.

15

And the third possibility I suggest

16

to you, Doctor, is that someone intentionally or

17

deliberately administered digoxin to the child?

18

A. Yes.

19

Q. Do you agree that that is

20

a possibility?

21

A. Yes, it is always a

22

possibility.

Q. All right.

23

And then fourthly, the possibility

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that you suggested yourself this morning, and that
is that the drug remnants or the drug that was
measured in the child's body was not in fact digoxin
but something that reacted on forensic assays in the
same way as digoxin. That's a fourth possibility?

A. Yes.



Rose
re.dr. (Cronk)

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Q. And about that I take it you would defer to pharmacologists as to what the evidence is?

THE COMMISSIONER: Be careful when you use that word.

MS. CRONK: That's right.

Q. On that score, Doctor, I take it that you would prefer that the pharmacologists be questioned concerning the meaning of the levels recorded in the child?

A. That's correct.

MS. CRONK: Thank you, Doctor, you have been very patient. I have no further questions.

THE COMMISSIONER: Yes. Well, before we release you Mr. Strathy has something else.

MR. STRATHY: I wonder if with your leave, Mr. Commissioner, whether I could examine the witness on Exhibit 164 that my friend has just referred, the new Exhibit 164 with the names blacked out.

MS. CRONK: I take it you didn't have any questions on the old Exhibit 164, Mr. Strathy?

THE COMMISSIONER: Well, you're right, Ms. Cronk, but I think it is better to --



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CC2-2 2

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MS. CRONK: I have no objections,
Mr. Commissioner.

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THE COMMISSIONER: I will give you
an opportunity but I may have to give all sorts of
people an opportunity, but you go right ahead.

7

8

9

MR. STRATHY: Well, since this really
is something that Miss Cronk did not put to the
witness in chief and doesn't exactly arise out of
any cross-examination ---

10

11

THE COMMISSIONER: No, no. You have
won already so go right ahead.

12

FURTHER CROSS EXAMINATION BY MR. STRATHY

13

14

Q. Doctor, do you have these
minutes in front of you?

15

A. Yes.

16

17

18

19

Q. And at the preamble it refers
to Dr. Phillips' request that the meeting be called
due to an increase in cardiac autopsies during the
month of August, 1982. I gather what Dr. Phillips
was really concerned about was cardiac deaths?

20

A. Yes, with autopsy.

21

Q. With autopsies.

22

23

A. That leaves out those that didn't
have an autopsy and I don't know how many there were.

24

25



1

C2.3

2

Q. But the real concern was

3

the increase in the number of deaths?

4

A. Yes.

5

Q. And I gather from your

6

evidence that you view this, August 1982, as indeed
a cluster, as you have described it?

7

A. Yes.

8

Q. I'm sorry, is that yes?

9

A. Yes.

10

Q. I'm looking at these

11

thirteen or fourteen cases, Doctor, and knowing as
I'm sure you do the limits of my understanding of
cardiology, they look to be fairly serious condi-
tions from each of the summaries.

12

13

14

A. Yes.

15

Q. Would you agree that these

16

do represent a cluster of children with serious
cardiac diseases?

17

18

A. Yes.

19

Q. And may we conclude,

20

Doctor, that the clustering of severe cardiac
diseases in effect has resulted in a cluster of
deaths for that reason; in other words, the reason
we see the deaths is because the diseases are
severe?

21

22

23

24

25



Rose
cr.ex. (Strathy)

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C2.4 2

A. Yes.

3

Q. So we have here not just

4

a cluster of children with severe cardiac diseases
but we have a cluster of deaths?

5

A. Yes.

6

Q. Now, I am at a great

7

disability here because I have trouble with colours.

8

This colour is yellow?

9

A. Yes.

10

Q. And this colour represents

11

ICU --

12

THE COMMISSIONER: Which is the
one though that represents the cardiac deaths?

13

MR. STRATHY: Exactly.

14

THE COMMISSIONER: Which is the

15

colour that represents the cardiac deaths?

16

MR. STRATHY: Q. Doctor, could

17

you come over to the chart, do you mind coming over

18

to the chart and pointing for us which is the

19

cluster in August 1982 on that chart.

20

THE COMMISSIONER: That is the
exhibit, is it, 160?

21

MR. STRATHY: Exhibit 125.

22

THE COMMISSIONER: 125.

23

MR. STRATHY: Q. Can you find

24

25



1

C2.5

2

August of 1982?

3

A. This must be August here.

4

Q. You are pointing -- I think
you have it --

5

A. I'm sorry, is that not it?

6

Is this January?

7

Q. We have January, February,

8

March, April, May, June, July, August.

9

A. This is it here.

10

Q. All right. So you are
pointing to the yellow peak.

11

12

THE COMMISSIONER: No, it is the
cardiac deaths which is the red peak.

13

14

MR. STRATHY: Q. So, you are
pointing -- let's start first of all with the yellow
peak which is the last major yellow peak on the
chart.

16

17

A. And the red peak is just
the all cardiac.

18

19

Q. All right. So, we see
also a peak of all cardiac deaths and a peak of
the ICU deaths?

20

21

A. That's right. This is the
all cardiac, this is those that are on 7G and those
in the ICU.

22

23

24

25



Rose
cr.ex. (Strathy)

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CC2.6

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Q. All right.

3

A. Okay.

4

Q. Thank you.

5

If you can look at the last page
of this exhibit, Doctor, the third paragraph from
the bottom. Do you have that?

6

7

A. Yes.

8

Q. It says:

9

"Dr. Phillips stated the pathologist's
perspective. He was concerned
about the large number of cardiac
autopsies in August 1982, which
were significantly greater than
any month since 1976."

10

11

12

13

14

Do you recall that being discussed?

15

A. Yes.

16

Q. And I take it that that

17

was obviously a concern to all those present at the
meeting?

18

A. Yes.

19

Q. It was so much of a concern

20

that Dr. Teperman was called in?

21

A. Yes, he was there.

22

Q. And then it says:

23

"He felt that..."

24

25



1

CC2.7 2

This is Dr. Phillips, I take it?

3

A. Yes.

4

Q. "He felt that he did not wish to shoulder the responsibility alone."

5

6

That is the responsibility of

7

what, do you know?

8

A. The responsibility of

9

knowing, having the knowledge of the increased number of deaths without sharing it.

10

11

Q. So, you wanted your colleagues to be made aware of the situation?

12

A. Yes.

13

14

Q. And the purpose of the meeting was to try and find, not only to bring it to people's attention but to find some reason for it?

15

16

A. Yes. We also looked at the digoxin levels.

17

18

Q. So, I take it that the digoxin levels were not found to be a concern?

19

A. No.

20

Q. But then it says:

21

"...he (Dr. Phillips) thought the doubling of the cardiac deaths during that month was significant

22

23

24

25



1
CC2.8 2

enough to call a meeting."

3

Now, what was the doubling up,

4

was that the doubling over the previous month?

5

A. I'm not sure what he

6

meant by doubling. I think what he meant was that

7

it was significantly greater than any other month,

8

possibly more than -- I mean doubling compared to
any other month.

9

Q. Compared to any other

10

month since 1976?

11

A. I think that would be the

12

case, yes.

13

Q. Now, Doctor --

14

THE COMMISSIONER: This was 1982?

15

MR. STRATHY: 1982.

16

THE WITNESS: This is 1982.

17

THE COMMISSIONER: Well then, I'm

18

having trouble. All cardiac, oh, yes, that's right,
that's right.

19

MR. STRATHY: Q. It perhaps

20

may mean, Doctor, that what Dr. Phillips, as a

21

pathologist, was doing is saying that there were

22

double the number of autopsies that he had done in
any month since 1976. Is that possible?

23

A. Yes, that's possible. I

24

25



1
CC2.9 2 think that's what it was. I'm not sure.

3 Q. That the statistic that
4 the pathologist saw was the doubling, not necessarily
5 of the deaths in any particular area, but the
6 autopsies that he was doing tied to cardiology?

7 A. Yes, I think that's it.

8 Q. Thank you.

9 Doctor, as a result of this
10 particular meeting, was there some explanation found
11 for the clustering in August 1982?

12 A. No.

13 Q. Would you agree with me
14 then that there can be clustering, as I think we
15 have talked about before, without any apparent
16 explanation to it?

17 A. Yes. I think I should
18 just point to the paragraph before the last, Dr.
19 Swyer's comment about the facility of the transport
20 team and the Oncare program which led to early
21 referral of children with critical heart disease.
22 That might be a factor.

23 Q. What is the transport team?

24 A. This is the team that is
25 sent out to stabilize the patient who is very ill
anywhere in Ontario who is being referred to us for
treatment and was very sick, too sick even to be



Rose
cr.ex. (Strathy)

1
C2.10 2 transferred, so the team goes out and treats the
3 patient and then stablizes him so that he can
4 be transported.
5 Q. The child is ultimately
6 brought into the Hospital?
7 A. Yes.
8 Q. And the Oncare program?
9 A. This is a program for
10 Ontario. I'm not sure precisely what it entails
11 but it is designed to facilitate transport of sick
12 babies to the Hospital.
13 Q. So, what they are saying
14 or what Dr. Swyer was saying, was suggesting that
15 in 1982 as opposed to 1962, you might be getting
16 sicker, critical babies into the Hospital with
17 greater frequency than you were at earlier dates?
18 A. Yes.
19 Q. And may that also have
20 meant something that was taking place in 1981 as
21 well?
22 A. At that time, I don't
23 think we had the transport team, but I'm not sure.
24 Q. Is it possible that you
25 were getting sicker babies in the Hospital earlier
in 1981 than you were in previous years?



1

CC2.11 2

A. That's a possibility.

3

Q. All right.

4

But in any event, may we take it
that the full reasons for that clustering in August
1982 are still unknown to you?

5

6

A. Yes.

7

8

9

10

11

Q. And when Miss Cronk went
through a number of explanations for the clustering
which we see in 1981, would you agree with me that
there are still other explanations for that
clustering of which you are not aware?

12

13

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A. 1980 you mean?

3

Q. Yes, I am sorry, 1980.

4

A. Yes, that is possible.

5

Q. In the same way as there
may be reasons for the 1982 clustering of which you
are not aware?

7

A. Yes.

8

Q. And just speaking finally of
the 1980 clustering, Doctor, would you not agree that
if you have a cluster in 1980 of, as you called it,
children with serious or critical condition, the
clustering of children in those circumstances may well
result in a clustering of deaths for that very reason?

13

A. Yes.

14

MR. STRATHY: Thank you.

15

THE COMMISSIONER: Miss Thompson?

16

I am sorry, Mr. Tobias?

17

MR. TOBIAS: Mr. Commissioner, if I
may have leave to ask one question only.

18

THE COMMISSIONER: Yes.

19

MR. TOBIAS: It will be a very short
one, arising directly out of Miss Cronk's re-examination.

21

THE COMMISSIONER: Yes.

22

FURTHER CROSS-EXAMINATION BY MR. TOBIAS:

23

Q. Now, Doctor, I believe you

24

25



1 told Miss Cronk that you were not aware of an
2 incident report with respect to the accidental
3 administration of digoxin being filed with respect
4 to Stephanie Lombardo.

5 Are you aware of any such report
6 filed with respect to Jordan Hines?

7 A. No.

8 MR. TOBIAS: All right. Thank you.

9 THE COMMISSIONER: Miss Thompson.

10 MS. THOMPSON: No questions.

11 THE COMMISSIONER: Mr. Ortved?

12 MR. ORTVED: No questions.

13 THE COMMISSIONER: Miss Cronk.

14 MS. CRONK: One or two, sir, if you
15 don't mind.

16 THE COMMISSIONER: All right.

17 FURTHER RE-EXAMINATION BY MS. CRONK:

18 Q. Doctor, with respect again
19 to your minutes so that I at least am very clear,
20 as I understand it the issue under consideration
21 is increased in what has been described as cardiac
22 autopsies?

23 A. Yes.

24 Q. Since August, 1982? And am
25 I correct, Doctor, that that term "cardiac autopsies"
could apply to autopsies on cardiac patients from



1
2 anywhere in the hospital, be it from the cardiology
3 wards, be it cardiac patients from the ICU, be it
4 cardiac patients from the neonatal wards?

5 A. Yes.

6 Q. Or anywhere in the hospital?

7 A. Yes.

8 Q. And we know in this particular
9 case the concern because it is demonstrated by the
10 minutes, the children were dying in the ICU
predominantly and in the neonatal wards predominantly?

11 A. Yes.

12 Q. And then with respect to
13 this question of doubling cardiac autopsies ---

14 A. Yes.

15 Q. The reference on the final
16 page of the minutes, Doctor, I take it that that
might occur again for a number of reasons.

17 Certainly the first reason is an
18 increase for that particular month in the number of
19 deaths?

20 A. Yes.

21 Q. Of patients with severe cardiac
22 problems?

23 A. Yes.

24 Q. All right. As well, it could
25



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occur because there was an increase in the number of parental consents to autopsies that were obtained as a possibility?

A. Yes .

Q. And thirdly it could occur because there was an increase in the number of cases where postmortems were being required under the auspices of the Coroner's office? That is a possibility?

A. I suppose it is, yes.

Q. And in respect to these particular deaths, these particular cases in August of 1982, so that I am clear, Doctor, as I understand it these deaths reported upon in these minutes reflect an increase in the number of cardiac autopsies and hence obviously deaths which occurred for one month, in the month of August, 1982?

A. Yes.

Q. All right. And similarly if we go through the cases that are recorded there, in my reading of the minutes, Doctor, the highest ante mortem digoxin level in any of those cases recorded was 3.4, as in Case No. 2. We don't find a digoxin level in the range of 20 as we have in our case of Kevin Pacsai and indeed in the case of



1
2 Justin Cook in the range of 7. We are not dealing
3 with ante mortem digoxin levels of that kind, are
4 we? A. No.

5 MS. CRONK: Thank you, Doctor, once
6 again.

7 THE COMMISSIONER: Thank you very much,
8 Doctor. I suggest - I give to you the same advice
9 that I have given all the other cardiologists: beat
10 a very hasty retreat and not come back unless some
11 posse comes to collect you.

12 Should we take a few minutes now?

13 MS. CRONK: May I suggest we do, sir,
14 before we start with Dr. Becker.

15 THE COMMISSIONER: All right. I think
16 we will try to hold it down to 10 minutes, though.
17 Is that enough?

18 MS. CRONK: That is fine.

19 ---Short recess.

20 ---On resuming.

21 MR. OLAH: Mr. Commissioner, I have
22 a question that arises out of this Exhibit 164.
23 Dr. Rose is still outside. I was wondering if I
24 could have your leave to ask that one question.

25 THE COMMISSIONER: Well, I hope that
Dr. Rose took my advice and fled.



6

1

2

MR.OLAH: She hadn't, Mr. Commissioner.

3

THE COMMISSIONER: Well, that will

4

teach her.

5

MR.OLAH: I am told that she is just
taking your advice in hand towards the elevator I am
told.

6

7

THE COMMISSIONER: Has she gone?

8

MR. OLAH: Yes, I am afraid so.

9

THE COMMISSIONER: I am delighted to
hear that, I must say.

10

11

All right. I am sure you will get
an opportunity to ask someone else, though, before
this is over.

12

13

MR. OLAH: Undoubtedly.

14

MS. CRONK: Our next witness is Dr.

15

Laurence Becker.

16

LAURENCE EDWARD BECKER, Sworn

17

DIRECT EXAMINATION BY MS. CRONK:

18

Q. Dr. Becker, as I understand
it you obtained your medical degree in 1967 from the
University of Alberta?

19

20

A. Yes.

21

22

Q. Is that correct? You then
spent a year, as I understand it, as a rotating intern
at Montreal General Hospital, University of McGill?

23

24

25



1

2

A. Yes.

3

4

Q. Is the smile because I said
"rotating" or "intern"? Do I have it correctly,
Doctor?

5

A. Yes. It is a long time ago.

6

7

8

9

10

11

Q. In the following year from
1968 to 1969 you were an assistant resident in
Pathology at Toronto General Hospital, and the year
after that you were an assistant resident in Neurology
at the Toronto Western Hospital for six months, and
at Toronto General Hospital for another six months?

12

A. Yes.

13

Q. Do I have that correctly?

14

A. Yes.

15

16

17

Q. And from July to December,
1971, as I understand it, you were an assistant
resident in Neuropathology at Toronto Western
Hospital?

18

A. Yes.

19

20

Q. And you joined the staff of
Hospital for Sick Children as an assistant resident
in Neuropathology in January, 1972?

21

A. Yes.

22

23

Q. And I take it you completed
that residency at the Hospital for Sick Children in

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that year?

A. Yes.

Q. And you then went, as I understand it, you went to Johns Hopkins Medical School, the same year, 1972, as a Research and Teaching Fellow in Neurology and in Neuropathology where you remained for the next two years?

A. Yes.

Q. All right. And in 1974 you left Johns Hopkins and accepted an appointment, if I have it correctly, as First Senior Pathologist at the Hospital for Sick Children?

A. Yes.

Q. And secondly, a Staff Pathologist at the Toronto General Hospital?

A. Yes.

Q. And thirdly, as Assistant Professor of Pathology at the University of Toronto?

A. Yes.

Q. Right. Were you serving then, Doctor, from 1974 on as both a Senior Pathologist at the Hospital for Sick Children and Staff Pathologist as well at the Toronto General Hospital?

A. Yes.

Q. Do you continue to hold both of



1
2 those appointments today?

3 A. Yes.

4 Q. And are you still affiliated
5 with the Pathology Department as an Associate
6 Professor of Pathology at the University of Toronto?

7 A. Yes.

8 Q. Do you hold that appointment
9 today? You are an Associate Professor?

10 A. Yes.

11 Q. And in 1982, as I understand
12 it, you became head of the Division of Neuropathology,
13 also at the University of Toronto; is that correct?

14 A. Yes.

15 Q. And that is a position you
16 continue to hold today, Doctor?

17 A. Yes.

18 Q. You belong, Doctor, as I
19 understand it, to a number of professional societies,
20 both in Pathology and Neuropathology?

21 A. Yes.

22 Q. And you are also the author
23 of numerous abstracts and articles in those fields?

24 A. Yes.

25 Q. Doctor, your counsel has been
kind enough to provide to me a copy of your curriculum



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2

vitae. Copies have been distributed to other
counsel, Mr. Commissioner.

3

4

I would ask you, Dr. Becker, if you
would to look at the copy that I am about to give
you and tell me whether you can identify that as
being your curriculum vitae.

5

6

7

THE COMMISSIONER: Yes. What number
are we? 192?

8

9

THE WITNESS: Yes, it is.

10

MS. CRONK: I am sorry, sir, Exhibit
192?

11

12

THE COMMISSIONER: 192.

13

---EXHIBIT NO. 192: Curriculum vitae of Laurence
Edward Becker.

14

MS. CRONK: Thank you.

15

MR. TOBIAS: Mr. Commissioner, did you
make the Coroner's statement as to cause of death
of Jordan Hines 150A?

16

17

THE COMMISSIONER: It is part of it.
We just added it to 150. We did the same thing as
we did with Laura Woodcock.

18

19

20

MR. TOBIAS: Thank you, sir.

21

MS. CRONK: Q. Thank you. Dr. Becker,
with respect to the articles and abstracts which
appear in your curriculum vitae under your authorship,
I note in a number of cases articles or abstracts or
chapters of books which have to do with the subject of

22

23

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Sudden Infant Death Syndrome. Is that correct?

3

A. Yes.

4

Q. All right. You have I take

5

it from that, Doctor, a special interest in the

6

pathology and neuropathology of Sudden Infant Death Syndrome?

7

A. Yes.

8

Q. All right. And you have

9

published a number of articles as I have noted.

10

Do they appear in your curriculum vitae?

11

A. Yes.

12

Q. And as well, I understand it

13

you recently published as author a chapter in a book devoted solely to the Sudden Infant Death Syndrome.

14

The chapter is entitled Neuropathological Basis for

15

Respiratory Dysfunction in Sudden Infant Death

16

Syndrome?

17

A. Yes.

18

Q. Is that correct?

19

A. Yes.

20

Q. And that book, together with

21

the chapter that you authored in the book, was published earlier this year?

22

A. Yes.

23

Q. Right. Doctor, I am showing

24

25



1

2

you a copy of an extract from the book which I
understand to be the chapter that you authored.

3

4

I would ask you to identify it for
me if you could. Is that the chapter you authored,
Doctor?

5

6

A. Yes, it is.

7

8

MS. CRONK: May that be marked, sir,
as the next exhibit?

9

10

THE COMMISSIONER: Yes. That will
be Exhibit 193.

11

12

What is the name of the book again,
please?

13

14

MS. CRONK: The book as I understand
it, Doctor, correct me if I am wrong ---

15

16

THE COMMISSIONER: Is it listed
somewhere under publications?

17

MS. CRONK: I believe it is ---

18

MR. OLAH: No. 82.

19

THE COMMISSIONER: 82? You have been
a busy man, Doctor.

20

MS. CRONK: Q. Is that the book,
Doctor?

21

A. Yes.

22

23

Q. No. 82? Or is that the chapter
in the book?

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A. It is the chapter in the book.

Q. Chapter in the book.

A. And that is the name of the book, yes.

Q. And is the name of the book itself "Sudden Infant Death Syndrome"?

A. Yes.

---EXHIBIT NO. 193: Extract entitled "Neuropathological Basis for Respiratory Dysfunction in Sudden Infant Death Syndrome"

Q. Doctor, we have seen that you have trained in and written a number of articles both in the area of pathology and as well in the area of neuropathology.

Could you explain for us briefly, Doctor, what is involved in the discipline of neuropathology?

A. Well, first of all, the discipline of pathology concerns itself with the functional aspects of disease or the functional biology of disease, and the neuropathology is concerned with the study of the diseases of the brain and spinal cord, peripheral nerves and muscle. Those diseases that - those areas that are primarily controlled by the nervous system.



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Q. And you have an interest then, Doctor, both I take it in the discipline of pathology itself and as well a particular interest in neuropathology?

A. Yes.

Q. Doctor, I would ask you if you would to direct your mind to the period of July, 1980 to March of 1981 which as you are probably aware is the period of time with which this Commission is concerned.

During that period of time, Doctor, I take it that you were first Senior Pathologist at the Hospital?

A. Yes.

Q. Can you describe for us, Doctor, in as much detail as you consider sufficient, what your principal duties were as a Senior Pathologist in the Pathology Department during that period of time at the hospital?

A. As a Senior Pathologist in the Department of Pathology my responsibilities were somewhat different than some of the other members of the Department because I was involved in doing the neuropathology, so that means that I was looking at the brain tissue on the children that had died.



1
2 In addition to that I was covering
3 the service on weekends and periodically during the
4 week on a rotatory basis, rotational basis.

5 Q. Anything else, Doctor?

6 A. Well, part of the job, so
7 to speak, one also looks at surgical material that
8 comes from the operating room and one is also involved
9 in a great deal of teaching both under-graduates and
10 post-graduates in terms of resident doctors.

11 Q. And those were your duties,
12 Doctor, I take it in the period July 1980 through
13 to the end of March 1981?

14 A. Yes.

15 Q. Doctor, as I understand it
16 the head of the Department of Pathology during that
17 period of time was Dr. Phillips?

18 A. Yes.

19 Q. Did you report directly to
20 him?

21 A. Yes.

22 Q. Can you help me, Doctor, during
23 that period of time how many senior pathologists were
24 there in the Department of Pathology?

25 A. I believe there were five.

Q. Doctor, your counsel has



1
2 provided to me a list of what is described to be the
3 Senior Staff Pathologists, Clinical Fellows and
4 Residents in Pathology for the period July 1st,
5 1980, through to March 31, 1981. I am going to show
6 you a copy and ask you if it accurately sets out to
7 the best of your recollection the Staff Pathologists
8 and the Residents and Fellows who were involved
9 during that period of time?

10 THE COMMISSIONER: Just for my information,
11 when you say "your counsel", whom do you mean?

12 MS. CRONK: That is a tricky point.
13 That came to me I believe from Mr. Ortved this
14 morning.

15 THE COMMISSIONER: I take it Dr.
16 Becker is one of your clients?

17 MR. ORTVED: He is one of my clients,
18 but I don't lay any claim as to the accuracy of
19 this.

20 MS. CRONK: Well, apart from ---

21 MR. ORTVED: This is the first I have
22 heard of it.

23 MS. CRONK: It was from the counsel
24 for the Hospital then as far as I understand it.

25 Miss Thompson, is that correct?

MS. THOMPSON: That is correct, Mr.



17
1
2 Commissioner.

3 MS. CRONK: Thank you.

4 THE COMMISSIONER: We had better make
5 it an exhibit while we are thinking of it. It is
6 Exhibit 194.

7 ---EXHIBIT NO. 194: List of Senior Staff Pathologists,
8 Clinical Fellows and Residents
9 in Pathology.

10 MS. CRONK: Thank you.

11 Q. Dr. Becker, in the first section
12 of the exhibit there is a description under Pathology
13 Staff, July 1, 1980 to March 31, 1981, and then a
14 series of five names appear.

15 Are those the Staff Pathologists to
16 the best of your recollection who served in the
17 Pathology Department during that period?

18 A. Yes, they are.

19 Q. And similarly, following
20 immediately after that is a list of individuals
21 described as Residents and Fellows for July 1 to
22 December 31, 1980, and a series of names are set out.

23 For that six month period are those
24 individuals to the best of your recollection the
25 Residents and Fellows that served during that period
of time?

A. Yes.



1
2 Q. And then for the next
3 three months, doctor, from January 1, 1981 to
4 March 31, 1981, again there are six names set out.

5 To the best of your recollection
6 are they the residents and Fellows that served in
7 the department at that time?

8 A. Yes.

9 Q. Thank you, doctor.

10 Can you tell me, doctor, with
11 respect to the involvement of residents in the
12 Department of Pathology during that period of time -
13 I take it that they served on a rotational basis?

14 A. Yes, the residents did.

15 Q. What was the normal tenure
16 of a particular rotation for any given resident
17 through Pathology?

18 A. Residents usually spend
19 six months doing the pathology except for the
20 Chief Resident who would spend anywhere from one
21 year to perhaps two or three years.

22 Q. All right.

23 And with the exception of the
24 Chief Resident, doctor, was there any particular
25 time of the year which was marked as the commencement
of the changeover of rotation, or did that happen



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on an ad hoc basis throughout the year?

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A. For the six-month

4

rotations, the time was January, and the second

5

time was July.

6

Q. All right.

7

A. In any one year.

8

Q. Thank you.

9

And similarly with respect to

10

the Fellows, did they serve in the Department of
Pathology on a rotational basis?

11

A. Their terms were usually

12

longer, closer to a year rather than six months,

13

but they would have started at approximately the
same time, either January or July.

14

Q. Thank you, doctor.

15

Doctor, I am interested in the

16

format by which particular autopsies are assigned

17

or were assigned during the period in which we

18

are interested to various pathologists in the

19

Department.

20

First, may I ask you, as I under-

21

stand it there were two types of autopsies then

22

conducted in the Hospital.

23

The first was an autopsy in respect

24

of which parental consent had been obtained.

25



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A. Yes.

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Q. And the second type of

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autopsy would be one required under the auspices of
the Coroner's office?

5

A. Yes.

6

Q. If we may, doctor, I would

7

like to deal first with the parental consent

8

autopsies.

9

In respect of those types of

10

autopsies can you tell me how during the period

11

July 1980 to March 1981 how internal to the Depart-

12

ment of Pathology it was determined which pathologist

13

resident and/or Fellow would be assigned to any

14

given post mortem or autopsy?

15

A. The post mortems were

16

usually assigned according to the staff pathologists

17

that would be on call for a particular day, including

18

the weekends. And for the residents, the assignment

19

was usually on a rotational basis, and frequently

20

excluded those residents that were during that week

21

or month doing some other duties. So that instead

22

of all six residents rotating there might have only

23

been three residents of the six rotating doing the

24

post mortem duties.

25

Q. I take it then, doctor,



1
2 during the period of their rotation they would have had
3 responsibilities and duties internal to the
4 Department quite distinct and separate from the
5 conduct of autopsies?

6 A. Yes.

7 Q. And that would similarly
8 be true of the staff and senior pathologists in
9 the Department?

10 A. Yes.

11 Q. So at any given time,
12 doctor, do I have it correctly that a particular
13 senior pathologist would be technically on call for
14 the purposes of performing whatever autopsies that
15 day might be required?

16 A. Yes, that is correct.

17 Q. Is that true as well
18 in respect of weekends, doctor?

19 A. Yes.

20 Q. Is there a distinction
21 internal at that point in time in the Pathology
22 Department between a senior pathologist and a
23 staff pathologist?

24 A. They are pretty much
25 equivalent.

Q. All right. So it would



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be either a staff pathologist or senior pathologist
who would be on call for the purposes of autopsies?

A. Yes.

Q. And in addition in terms
of the designation of residents and Fellows to
perform those duties, would one particular resident
and one particular Fellow on every given day of the
week be assigned for the purposes of doing post
mortems if they arose?

A. No. I said that the
rotation for the residents was not necessarily on
a daily basis.

Q. I'm sorry.

A. In other words, Resident A
may do a post mortem on Monday --

Q. Yes.

A. -- Resident B may do one
on Tuesday, but if there were five autopsies in one
day, then they would just rotate, A, B, C, rather
than one resident doing all the autopsies in any
one particular day.

Q. Thank you, doctor.

A. But the staff doctors
would be responsible for all those in one day.



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Q. Thank you, Doctor, I misunderstood. Was there any particular time, Doctor, of the day, or of the night when autopsies were routinely performed?

A. Autopsies tended to be performed in the mornings.

Q. And was that on a seven days per week basis?

A. Yes.

Q. What, Doctor, would be the circumstance in the event that an emergency autopsy arose, the suggestion that an autopsy or a post mortem had to be conducted immediately?

A. An emergency autopsy would be done probably in two circumstances, one where there was an academic concern about a metabolic disease, in which case it would be important to obtain tissues as quickly as possible in order to have a maximum fixation. The other situation might be a medical/legal one.

Q. And by medical/legal you mean a coroner's autopsy?

A. Yes

Q. With those two exceptions, Doctor, if a patient in the Hospital died in the



1
2
3 early hours of the morning on any ward in the
4 Hospital, when then, do I take it correctly that the
5 likely time when the autopsy would be performed would
6 be later in the day, that is the morning of the
death of the child?

7 A. Yes.

8 Q. And in respect of a child who
9 died during the evening shift on any given ward in
10 the Hospital, would the same apply, that is that the
autopsy would likely take place the following morning?

11 A. That is correct.

12 Q. As a matter of routine then,
13 unless there was some emergency either because it
14 was a coroner's case or there was some question of
15 a metabolic disease there were no autopsies performed
16 at night?

17 A. That is correct.

18 Q. Would senior pathologists
19 during that period of time be on call for the
20 purposes of conducting emergency autopsies if they
arose?

21 A. Yes.

22 Q. And would the same senior
23 pathologist who was on call during the day be on call
24 during the evening?
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A. Yes.

Q. For that event?

A. Yes.

Q. And the same I take it would apply to both residents and fellows?

A. Yes.

Q. Doctor, as a normal practice internal to the Pathology Department, again during the same time frame that we are talking about, was it a standard or usual practice for the senior pathologist who was on call to personally participate in and conduct the autopsy on a patient?

A. That would be variable. Usually the resident doctor took the prime responsibility for doing the autopsy and he consulted the staff pathologist during that procedure.

Q. What was your own personal practice, Doctor?

A. The resident did the autopsy and I was consulted in the review of the chart and the findings during the autopsy.

Q. Would you personally be present at the autopsy lab room when the autopsy was underway?

A. That was also variable.



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Sometimes that would happen, sometimes that would not happen, there is no standard policy with respect to that.

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Q. Thank you, Doctor. I am interested as well, Doctor, in the actual mechanics in terms of time that apply for the conduct of a routine autopsy.

9

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Can you help me first, as an approximation, how long would it take from start to finish to conduct a routine autopsy if it was being done on a non-emergency basis?

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A. On average two to six hours.

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Q. And would that include, Doctor, would that time estimate include the length of time required to take whatever samples might be necessary if microscopic examination was planned?

A. No. The specimens of tissue would be set aside as fixed for a day or two and following that the sections would be trimmed.

THE COMMISSIONER: That wasn't quite the question, Doctor. I think it was whether that two to six hours would include taking the samples and getting them and having them abstracted presumably from the body. I don't think you meant, or did you mean the time it would take to examine them?



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MS. CRONK: To help, Mr. Commissioner,
if I might.

Q. As I understand it, Doctor, in
some circumstances microscopic examinations are
considered desirable as part of the routine and
complete autopsy?

A. Yes.

Q. As a standard matter, are
microscopic examinations always undertaken in respect
of particular organs in the body as part of a
routine autopsy?

A. Yes.

Q. They are. So to have a
complete routine autopsy, microscopic examinations
are taken, are undertaken?

A. Yes.

Q. In that situation as I under-
stand it, Doctor, during the actual autopsy itself,
the necessary samples or tissue samples are taken by
the pathologists conducting the autopsy for later
processing?

A. Yes.

Q. Talking then only of the
length of time that is required to take the samples
as opposed to the length of time that is required to



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process the samples, does your estimate of two to six hours for the completion of a routine autopsy include the time necessary to take those samples?

A. Yes.

Q. And I understand, Doctor, then that after the samples are taken, the samples are then taken to another area of the Hospital to be processed onto slides?

A. It is the same department, the Department of Pathology, it is not really very far away in terms of the physical facilities, that is true.

Q. And how long does that take, normally?

A. The processing of the slides may take anywhere from - well there is one step in between the processing of the slides and the autopsy, and that is to trim the tissue after it has been fixed for usually around 24 hours, sometimes 24 to 48 hours. So that the tissue that is taken at the time of post mortem is put in a form to fix it, then two days later those sections must be trimmed for the appropriate slides and then those sections are then submitted for sectioning and staining, and that procedure, the sectioning and the staining may take



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anywhere from two days to a week.

THE COMMISSIONER: I am sorry, I
didn't quite, sectional what?

THE WITNESS: Sections of tissue,
pieces of tissue.

THE COMMISSIONER: The process is
called, sectional something?

MS. CRONK: Sectioning and staining.

THE COMMISSIONER: Sectioning and
staining.

MS. CRONK: Q. Is that what you said,
Doctor?

A. Yes, that means cutting the
sections.

THE COMMISSIONER: What is the staining?

THE WITNESS: Staining is done so
that one can discriminate between parts of the cells
so one can see a cell and distinguish a nucleus
from the cytoplasm.

MS. CRONK: I am not sure that that
helped all of us, Doctor, but perhaps we can come
back to that.

THE COMMISSIONER: Perhaps it means
something, staining in ordinary parlance doesn't
mean improving at all, but it is improving, it is



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some way of making it easier for you to carry out
your microscopic examination.

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THE WITNESS: Yes. If the sections
were not stained one could not see very much, it
really means coloured.

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MS. CRONK: Q. By staining, Doctor,
is it - and this again is a lay person's perspective,
is it adding to the tissue sample a form of contrast
material, ink or dyes that it is more easily visible?

8

9

10

A. Yes.

11

12

Q. With respect to the time
then that is involved. As I understand it you take
the samples that are ultimately going to be used
for microscopic examination during the autopsy
itself?

13

14

15

A. Yes.

16

17

Q. And that is the first step?

18

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A. Yes.
Q. Then you have told us you are
required to trim the tissue samples involved and that
I thought you said took approximately two days after
the taking of the sample.

22

23

A. Yes.
Q. So we can add two days from the
date that the autopsy was conducted?

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A. Yes.

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Q. Then after that, after they

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had been trimmed and after they had been fixed in

5

the solution they are sent for the process you have

6

described as sectioning and staining and that I think

7

you told me took --

8

A. Two to seven days.

9

Q. Two to seven days?

10

A. Yes.

11

Q. Is that the time that is

12

required for the pathologist who sent the samples

13

to receive them back in slide form for further

14

examination, really the results of the samples that

15

he has taken?

16

A. That is correct.

17

Q. So in the routine or normal

18

case, I take it we are talking of the outside

19

approximately nine days following the day that the

20

autopsy is actually conducted, before those slides

21

are back to the pathologists for further review?

22

A. Yes.

23

Q. And then when the slides actually

24

arrive back in the autopsy laboratory and come to the

25

particular pathologist, would I be correct that then

the length of time required to conduct the actual



1
2 review of the slides would depend very much on the
3 individual?

4 A. Yes.

5 Q. And would depend I suppose on
6 the emergency which is perceived to attach to the
7 autopsy result?

8 A. Yes.

9 Q. Now, and I will return to this
10 later. In respect of those autopsies that are required
11 by the coroner's office, is there any different time
12 frame involved, different from the one you have just
described to carry out microscopic studies?

13 A. No, there is not. Except there
14 is one important component that has been left out
15 and that is examination of the brain.

16 Q. All right.

17 A. In order to examine the brain
18 the brain tissue must be fixed for as long as 10 days
19 to 20 days. So that the preparation of the brain
20 tissue is going to be at parallel with the preparation
21 of other tissue, but it is going to be delayed as
22 a consequence of that delay the final autopsy report
would also be delayed.

23 Q. I see. So that if once the
24 microscopic slides are back in the laboratory for
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3 review, the pathologist involved had not yet received
4 the brain back in a condition where it could be
5 examined, there would be a further delay of several
6 days before the brain would be in a state where it
could properly be examined?

7 A. Yes.

8 Q. By the same token, as soon as
9 the brain was ready for examination, having been
10 fixed for 10 or 12 days, at that point the pathologist
11 could undertake both reviews, the examination of the
12 brain and the examination of the slides that had
been returned from the tissue samples?

13 A. Yes, that is 10 to 20 days
14 then you have to add the time it takes again to trim
15 the tissue and to cut it and to stain it. So you
16 have to add another 2 to 7 days for the preparation
of the brain tissue.

17 Q. So you are talking then with
18 respect to the further sectioning and staining?
19 You are talking about the brain tissue itself?

20 A. Yes.

21 Q. Thank you, Doctor. Now, with
22 respect, Doctor, to the information that is available
23 to you before you embark upon the conduct of an
24 autopsy, can you help me, is the medical record of
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the patient involved available to you as the pathologist who is responsible for the autopsy?

A. Yes.

Q. And I take it you would as well have a form of consent that had been completed by the parents if it was a parental consent autopsy?

A. Yes.

Q. How does the medical record of the involved patient arrive in your hands?

A. The record moves from the ward to medical records, and it is held in medical records until they receive the consent. It is my understanding then that that chart comes to pathology, it is transported to pathology by the Hospital diener or autopsy attendant.

Q. That is an autopsy diener or an autopsy attendant?

A. Yes.

Q. We have seen a description on a number of autopsy reports that have been introduced in evidence, Doctor, of two positions; one is a prosector, and can you explain to the Commissioner what individual is being referred to by that title?

A. The prosector is the person doing the autopsy.



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Q. That will be the resident
then in most instances?

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A. In most instances, yes.

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Q. And we have also seen reference
on those forms to an individual referred to as a
technician, would that be the individual you have
just described as the diener?

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A. Yes.
THE COMMISSIONER: I am sorry, how
would you spell diener?

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THE WITNESS: D-i-e-n-e-r.

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THE COMMISSIONER: D-i-e-n-e-r.

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THE WITNESS: Yes.

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MS. CRONK: Q. Can you briefly
describe for us, Doctor, what the responsibilities
of the diener or the technician are in the conduct
of a normal routine autopsy?

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A. The diener's responsibility is
to transfer the child from the morgue to the autopsy
room and to assist the person performing the autopsy
in the conduct of that autopsy.

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Q. Is the diener a physician?

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A. In our Hospital one of the
dieners is a physician, and in the other situations
the diener is a PhD, but it is not a position that



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has to be physician. In other words, it doesn't have to be a physician as a diener, we just happen to be fortunate.

Q. And the role then essentially after the body is physically transported from the morgue to the autopsy laboratory is to assist the resident in the actual conduct of the autopsy itself?

A. Yes.

Q. Doctor, once - you have told me that the medical record travels from the ward where the patient has died to the Medical Records Department, and then is available once the parental consent is obtained for transmittal to the pathologist, is that correct?

A. Yes.

Q. Whose responsibility is it, Doctor, to see that the medical record finds its way from the Medical Records Department to the Pathology Department before the autopsy is undertaken?

A. The diener usually has that responsibility.

Q. Now as a normal practice, Doctor, would the staff or senior pathologist on call for the autopsy review the medical record prior to that autopsy being commenced?



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A. The resident doctor would review the chart, make notes on it, and then transmit the information to the staff doctor.

Q. Do both of those things happen before the autopsy is undertaken?

A. Yes.

THE COMMISSIONER: I'm sorry, the resident what did you say he would do, he would review the chart?

THE WITNESS: He would review the chart and make some notes on the chart.

THE COMMISSIONER: Yes.

THE WITNESS: And then phone the staff pathologist and tell the staff pathologist what he found.

MS. CRONK: Q. Was that the procedure that you followed in your own personal practice as well, Doctor?

A. Yes.

Q. So I take it then it would be in rare circumstances that you would personally review the medical record of a child prior to the commencement of any particular autopsy for which you were responsible?

A. Not rare, but not always either.



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3 I would think in the majority of cases particularly
4 during the week I would have had a chance to review
5 the chart.

6 Q. And with respect to the notes
7 which are prepared by the resident as to the contents
8 of the medical record, can you help me, where there
9 any rules or guidelines in place in the Pathology
10 Department during the period of time with which we
11 are concerned, which described the type of information
12 that the resident was to communicate to the senior
13 or staff pathologist on the medical records?

14 A. Not to my knowledge there wasn't
15 anything precisely written down. They were instructed
16 as they went through the residency program what to
17 expect. In other words, when a resident comes into
18 a residency program they have to be told what kinds
19 of information they should be aware of on the chart.
20 the

21 Q. What are /kinds of features,
22 Doctor, that you would consider important to know,
23 or to observe from the contents of the medical
24 record before embarking on an autopsy, what kind of
25 things do you look for?

26 A. One of the things is the
27 consent to make sure it is perfectly in order.
28 The other thing is a resume of the history and



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2 physical findings and any pertinent lab findings.

3 Q. Anything else?

4 A. That is pretty well the
5 procedure.

6 Q. Now, Doctor, quite apart from
7 the review of the medical record which is undertaken
8 by the resident, do you in accordance with your
9 normal practice have any discussions with the
10 clinicians, or the physicians who attend the patient
11 prior to death, before commencing the autopsy?

12 A. It is variable, sometimes yes,
13 sometimes no.

14 Q. Can you help me as to the kind
15 of situation which you might seek to speak to the
16 clinicians or the attending physicians before
17 authorizing the resident to commence the autopsy?

18 A. If there was a perceived
19 problem in terms of any part of the record, I can
20 see that the resident may suggest this to me as the
21 staff pathologist and then I may phone the staff
22 doctor.

23 Q. Are you interested, Doctor,
24 before the autopsy is commenced, in knowing what
25 the clinical diagnosis of the course of death was
of the particular patient?

A. Not so much cause of death as
diagnosis, as clinical diagnosis, yes.

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Q If that wasn't readily apparent to you from your discussion with the resident, following his or her review of the medical record, is that a matter that you would take up with the clinicians before the autopsy was started?

A Sometimes, but not all the time.

Q Doctor, I am interested as well in the method of distribution of the post mortem results. Can you help me again, during the period of time with which we are concerned, were there any rules or guidelines in place internal to the Pathology Department, or in the Hospital at large, which dictated who was to receive or be informed of the post mortem results on any particular autopsy?

A My understanding was that the autopsy was distributed according to the doctors that were listed on the admission and discharge form, which is present at the front of the chart. Those doctors that were listed on that form would then be put onto our autopsy form and those names then would be sent down to Medical Records and the autopsy forms or records, or reports, would be sent by Medical Records to the appropriate doctor.

Q You are talking now then, Doctor, I take it, of the forms which are entitled, that we



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have seen that are called "Preliminary Autopsy Report"
and "Final Autopsy Report"?

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A. Yes.

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Q. And the individuals you have told
us who in the normal course receive a copy of either
or both of those reports are the physicians named
on the admitting and discharge sheet contained in the
medical record of the patient?

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A. Yes.

THE COMMISSIONER: You say you find this
somewhere, did you say on the front of the medical
record, did you say?

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THE WITNESS: Yes.

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THE COMMISSIONER: Of course we made
copies and perhaps we have not copied them in a proper
way. I am showing you one that has to do with
Andrew Bilodeau, could you tell me where you would
find that?

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THE WITNESS: I can't make out the
page there, I guess it is 21.

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THE COMMISSIONER: That would be, in
the ordinary course it would be on the front page,
would it, the first front page of the medical record?

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THE WITNESS: It would be close to the
front. When a child is discharged and has more than



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one admission this is the front sheet of that particular admission.

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MS. CRONK: Q And that would then have been detached presumably by someone in the Medical Records Department, or someone in the Pathology Department, so it was readily available in the front of the medical record for review by the pathologist?

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A. I don't know that practice.

Q But as the medical records came in to you, I take it your evidence is that the admitting and discharge report was attached to the cover of the medical record, or at least to the front of it?

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A. Yes.

Q Now with the exception, leaving aside, Doctor, the issue of who receives the preliminary autopsy reports, or the final autopsy reports themselves, following the conduct of a gross autopsy on a child before the reports were prepared for distribution.

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A. Yes.

Q Was there any method or procedure in place for the oral reporting of the gross autopsy results back to the ward from whence the child had come?



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A. No, there was not.

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Q. In accordance with your normal

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practice, would you in those circumstances normally

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personally speak to the clinicians or the attending

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physicians who had been involved to inform them as

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to the results of the gross autopsy?

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A. No.

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Q. Referring specifically to patients

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from the cardiology wards, Doctor, the Commissioner

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has heard evidence that Dr. Freedom as a senior

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cardiologist at the Hospital had a cross-appointment

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in the Department of Pathology. His evidence has

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been that as a part of his interest in the pathology

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of the heart, his interest in the cardiology of the

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heart, that he frequently attended for the conduct

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of gross autopsies performed on cardiology patients.

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Does that accord with your recollection of the

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period under review?

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A. Yes.

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Q. With respect to the preparation --

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THE COMMISSIONER: I am going to ask

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because it is getting towards the end of the day,

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what is a gross autopsy, what does that term mean?

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THE WITNESS: It means an examination

by microscope.



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THE COMMISSIONER: In other words, it
is the early part, the immediate part?

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THE WITNESS: Yes.

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THE COMMISSIONER: And anything after
that is described as what?

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THE WITNESS: Well, it really doesn't
refer to time, it refers to the tissue. So one is
looking at a piece of tissue, say liver.

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THE COMMISSIONER: That is not part of
the gross autopsy, the gross autopsy is what?

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THE WITNESS: The gross autopsy is
actually examining the various parts of the tissue
and removing a portion of that tissue. If that tissue
remains for three or four days that is still a gross
specimen, it doesn't really change the nature of the
speciment.

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THE COMMISSIONER: What is the opposite
of gross, is that refined?

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THE WITNESS: Microscopic.

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THE COMMISSIONER: Microscopic?

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THE WITNESS: Yes.

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THE COMMISSIONER: So it is when you
take and put it under the microscrope that it then
ceases to be a gross autopsy?

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THE WITNESS: Yes, that is correct.

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THE COMMISSIONER: And the preliminary report, is it made - I am probably getting ahead of this, but is it made on the basis of this gross autopsy, or is it made on the basis of the microscopic examination?

THE WITNESS: It depends on the staff pathologist, and it depends to a certain degree on the case. So that in some circumstances the preliminary report would be made just on the gross findings, and in other circumstances it would be made on the microscopic findings.



Becker, dr.ex.
(Cronk)

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MS. CRONK: Dr. Becker, Mr. Commissioner,

I am about to move into a review with Dr. Becker of the subject of preliminary autopsy reports in some detail. Would this be an appropriate time to break, sir?

THE COMMISSIONER: Yes, excellent, thank you.

MS. CRONK: Mr. Commissioner, before we do break for the evening, by way of hoping to be of assistance to other counsel, perhaps I could alert them as to what our present intentions are with respect to future scheduling.

THE COMMISSIONER: Yes.

MS. CRONK: Obviously Dr. Becker is available, as I understand it, tomorrow for the completion, hopefully for the completion of his evidence.

THE COMMISSIONER: Yes. We have to bear in mind though we are rising at 3:30 tomorrow.

MS. CRONK: That's right. And if Dr. Becker is not completed tomorrow then on the resumption of the hearings on Monday it would be our hope that it would be completed at that time. The next witness who is scheduled to appear after Dr. Becker is Dr. Glenn Taylor from Vancouver who



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2 will appear before you, sir, to testify with respect
3 to the autopsy and the postmortem samples for digoxin
4 with respect to Janice Estrella. The proposed witness
5 following Dr. Taylor who is coming from, as I said
6 Vancouver specifically on a Monday and if necessary
7 Tuesday for the purposes of giving that evidence is
8 likely to be Dr. Carver. You will recall that he
9 agreed to come back for the purposes of completing
10 his evidence and as soon as we are aware of what
11 the scheduling is after that we will make counsel
12 aware of it.

12 THE COMMISSIONER: Yes, all right.

13 MS. CRONK: Thank you, sir.

14 THE COMMISSIONER: Thank you. All
15 right, well then until 10 o'clock tomorrow.

16 ---Whereupon the hearing adjourned until Thursday,
17 September 22nd, 1983 at 10:00 a.m.
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